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Networks
Guide

Covering the global business of multichannel delivery systems

Brazil! Brazil!

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CableLabs — The latest from the future
MMDS, home shopping and the Internet**

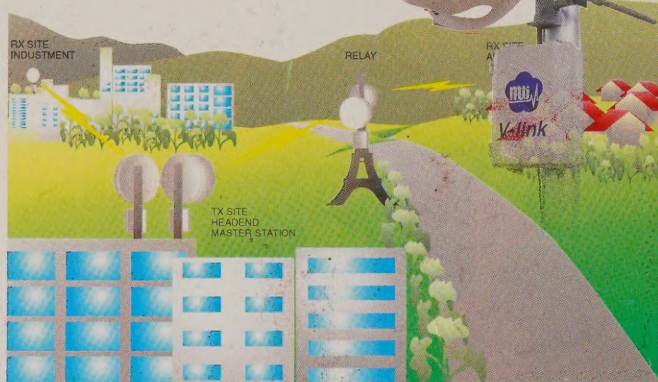
April 1995

台揚科技有線電視系統設備

MTI CATV System Equipment

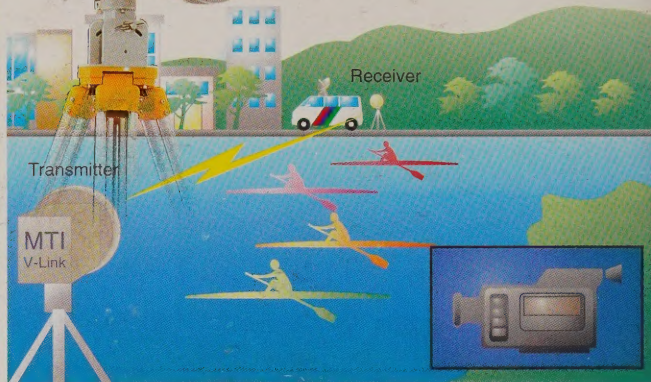
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- Low Power Consumption
- Reliable Frequency Stability



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- Automatic Color Control (ACC)
- Comb Filter Y/C Separator
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MK9241 Agile Television Modulator

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- Monitor/Test Port Provided
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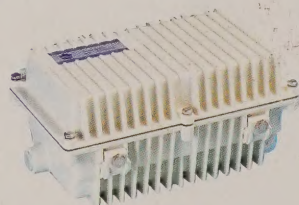
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A special guide to U.S. networks overseas.



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World Guide To U.S. Programmers

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FROM THE EDITOR

Television *con brio*

If there are any who still doubt the immense upside potential in producing television for the Latin American market, they should take a look at the latest LACTAP (Latin American Cable Television Association of Programmers) audience research figures. The new data presents compelling evidence that multichannel cable and satellite distribution in Central and South America is a business that has come of age.

LACTAP is comprised of 16 major cable networks and 12 other companies doing business in the region. They commissioned a survey of 5,750 multichannel homes throughout Latin American countries, including Puerto Rico, and the survey identified some very positive trends. Among them: The multichannel market is significantly larger than previously projected — between 10 and 12 million homes (due in part perhaps to traditional cable system underreporting of subscribers); it's a decidedly upscale audience, with higher than average income, good jobs and a lot of technology in the home; cable and satellite channel viewership is high (about 50%); and people want and watch a wide variety of these non-over-the-air channels.

Not surprisingly, all this data has been processed and filtered by the different networks to show how well their brand is doing. The fact of the matter, however, is that they're all doing very well. Good news, but not that surprising, to some like Rafael Pastor and Barry Frey at USA, Charlotte Leonard at TNT and Dawn McCall at Discovery. They knew years ago what the research is now bearing out: It's not just the U.S.-based Latin American audience that is growing faster than any other demographic group; the same vigorous growth is occurring south of the border!

In this month's issue, Jonathan Baker, our man in Brazil, presents an overview of the rapidly changing Brazilian TV market and previews the Brasil Link cable show in Rio de Janeiro. John Shackelford talks to a couple of programmers about the LACTAP study and profiles his favorite city, Miami, now the de facto programming and distribution gateway to South America. Rick Mendosa rounds up the home shopping services competing for the Latino pocketbook and examines the ups and downs of one would-be contender, TeleCompras.



In other features, long-time Turner-watcher Charles Haddad examines TBS' global ambitions and speaks with Ted Turner's top international programmers and salespeople. Jim Costello reports on the increasingly successful London Interconnect Group, comprised of six of the country's leading CATV operators whose aim is to provide advanced business and entertainment services to an affluent and crowded greater London customer base.

Shifting stateside, the folks at Cable-Labs provide a comprehensive and thoroughly readable overview of what the best technical minds in the U.S. CATV industry are thinking about as they design the cable system of the next century, and Bill Underwood continues his MMDS opus, this month focusing on that industry's subscriber acquisition techniques. For a "this is how we do it" treatment of the challenge, it's highly recommended reading. Finally, but only by virtue of positioning, Robbie Smith talks of life on the Internet and how cable has hit the ground running in adapting the network's open-ended resources to meet industry needs.

As an added bonus this month, we present *International Cable's* World Guide to U.S. Programmers. It's a guide to U.S.-based cable networks that export their programming overseas and over borders on a string of satellites. It's designed to help cable, wireless and satellite systems in all parts of the wired or unwired world connect directly with the supply line. We hope it proves a useful business tool and resource.

As they say in Brazil, "Prosperidad!"

Alex Swan
Editor

INTERNATIONAL CABLE

A CT Publications Product

Editor, Alex Swan

Managing Editor, Shelley L. Ollig
Assistant Editor, Eric Butterfield

Editorial Director, Toni I. Barnett
Executive Editor, Wayne H. Lasley
Associate Editor, Laura K. Hamilton
Senior Technical Editor, Ronald J. Hranac
Editorial Consultant, Tom H. Hall

Publisher, Paul R. Levine
Associate Publisher, Bill Parker
Executive Assistant, Cynthia Tandy
Administrative Assistant, Cathy Sabo

Account Executives

Mike Elmer, (303) 837-8601, ext. 233
Tim Hermes, (301) 340-7788, ext. 2004
Barbara Miller, (303) 837-8601, ext. 213
Joe Rosone, (301) 340-7788, ext. 2028

Advertising Representatives

Stephan DeRemusat (France)
ph: 33-1-3989-9600 fx: 33-1-3989-6341
Tricia Huang (Hong Kong)
ph: 852-2-359-3668 fx: 852-2-770-5886
Hiram Lai (Taiwan)
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Steve Regnier (U.K. & Scandinavia)
ph: 44-932-355-515 fx: 44-932-355-962
Rebekah Markheim (China, India, Middle East and Classifieds)
303-837-8601, ext. 204 fx: 303-839-1564

Director of Operations, Blair Richards
Senior Graphic Designer, Adrienne Blomquist
Production Director, Maria Sullivan
Advertising Coordinator, Jackie Longino
Circulation Manager, Maxine Minar
Subscription/Client Services (800) 777-5006

Director of Marketing, Nancy Umberger
Marketing Manager, Gail Stouffer

CT Publications Corp.

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U.S. Sales/Editorial Office
1900 Grant Street, Suite 450, Denver, CO. 80203 USA
Tel: (303) 839-1565 Fax: (303) 839-1564

Editorial Bureaus

South America: John Shackelford and Jonathan Baker
Alameda Casa Branca 1143/122
Sao Paulo, SP Brasil CEP 01408
Tel: (55) 11-280-6793 Fax: (55) 11-881-7162

Pacific Rim: Jack Chang

1-18, 7th Floor
Taichung Kang Road, Sec. 2
Taichung, Taiwan
Tel: 886-4-329-0930 Fax: 886-4-329-0925

Contributing Authors

Jonathan Mead Baker
Jim Costello
Charles Haddad
Rick Mendosa
John Shackelford
Robert L. Smith
Bill Underwood
Robert Wells

Corporate Offices

Phillips Business Information Inc.
1201 Seven Locks Road, Suite 300, Potomac MD 20854 USA
Tel: (301) 340-1520 Fax: (301) 340-0542

David J. Durham, Vice President/Group Publisher
Thomas C. Thompson, President
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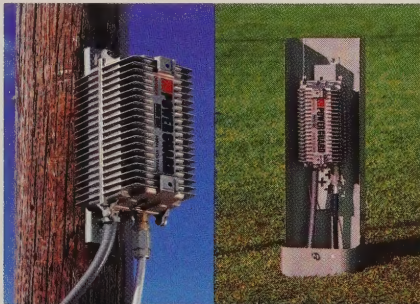
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Ameritech signs contracts for its CATV alternative

Ameritech recently awarded contracts worth up to US\$475 million for components in its new two-way video communications network, part of the company's plan to offer Midwestern U.S. consumers an alternative to cable TV.

The company signed a five-year agreement with Scientific-Atlanta (S-A) worth up to \$400 million for analog and digital set-top terminals and remote controls that consumers will use to select programs. S-A also will provide analog and digital headend equipment to be used in network switching centers, as well as its Model 8600^x advanced analog terminals, which feature on-screen interactive program guides, near-movie-on-demand capability, personalized information channels and the ability to change and add services through downloadable software. In addition, Ameritech will utilize S-A's System Amplifier II family, and taps

and passives with power passing capabilities. Previously, Ameritech awarded S-A contracts worth up to \$300 million for other network components.

A five-year agreement was signed with Digital Equipment Corp. worth as much as \$40 million for video servers, the powerful computer systems that will give Ameritech's video network the capability to deliver interactive services such as movies-on-demand, home shopping and games.

A six-year agreement, worth as much as \$35 million, was signed with ADC Telecommunications Inc. for cabinets to be placed in neighborhoods to house equipment that will link the fiber-optic network with coaxial cable running to consumers' homes. Ameritech previously awarded ADC a contract worth \$75-\$100 million for transmission systems.

In early February, Ameritech began building the two-way video network, which is expected to be operational in some Midwestern communities by the end of this year. The company expects to reach about 1 million new customers

a year, and 6 million customers in five Midwestern states by the year 2001. The U.S. Federal Communications Commission approved the company's requests to build the network this past December.

WCAI holds tech conference

The first annual Wireless Cable Symposium of the Wireless Cable Association International was held in Tampa, Florida, U.S.A., Feb. 4-6. The major thrust of the conference was digital methodologies for use in multichannel multipoint distribution service (MMDS) wireless. The digital compression plans parallel those of CATV (i.e., up to 10 programs per 6 MHz channel, with up to 33 channels available).

There were presentations by familiar cable people. Joe Waltrich of General Instrument presented a paper on the company's 64-QAM transmission for use in its MMDS set-top, which he said would be available in the first quarter of 1996. →

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Richard Citta's paper for Zenith, "VSB Digital Transmission Over MMDS Channels for the Wireless Cable Digital Alliance," presented the company's VSB digital transmission for use in its MMDS set-tops. He outlined the system description and presented field test results. John Bowler, vice president of R&D and cable LAN engineering, stated that Zenith MMDS set-tops also would be available in the first quarter of 1996.

There were a number of international attendees amongst the 200 registrants; three of the 20 papers presented were from abroad, reflecting the heavy international activity in wireless cable.

There has been much talk about wireless cable providing interactive services. The first question that occurs is, how can the return from the subscriber be handled? The use of the telephone for return has a number of undesirable effects (e.g., interference with the use of the phone).

John Wachsman, director of convergence products for Pacific Monolithics, gave a paper on "Interactive MMDS" in which he proposed the use of the H4 channels. The FCC

has allocated a number of these channels for use by wireless cable. Wachsman described them and they are: contiguous with the MMDS band; 28 separate 125 kHz channels; 50 kHz of modulation; 70 kHz of frequency accuracy; and 24 dBm maximum output power. — *Lawrence W. Lockwood*

Apstar crash won't hinder Indian expansion

Despite the explosion of the Apstar 2 satellite shortly after launch on January 26, leading TV and satellite equipment firms are confident of their expansion plans in India.

Asian Business News, a 24-hour business channel jointly owned by Television New Zealand, Dow Jones, SIM (Singapore) and Tele-Communications Inc. (TCI), was planning to cover the entire Indian subcontinent on a transponder booked on Apstar 2. Despite the setback, the company says the crash will not stop it from expanding its operations in India.

It now has an alternative in PAS 4, a Pan-American satellite due to be launched in mid-1995. ABN's busi-

ness channel currently is beamed off Palapa P2 and is watched only in Bombay by an estimated 14,000 households.

Also expanding its base in India are TNT and Cartoon Network, which were scheduled for delivery on Apstar 2. Both channels are currently beamed off Apstar 1. Turner International Network Sales Ltd. still plans to set up a full-fledged office in New Delhi and to market both channels to cable operators in north India before firming up a viable alternative to Apstar 2.

Analysts say that with almost 12 million subscribers currently receiving free-to-air satellite TV via several thousand cable operators, India also will emerge as the biggest hardware storehouse.


Time Warner Cable, which some analysts say has become the world's largest cabling firm after TCI following several recent acquisitions, is expected to work with an Indian firm and buy out huge numbers of private cable operators. Time Warner's programming wing, HBO, also is seeking an Indian partner for introducing its movie channel.

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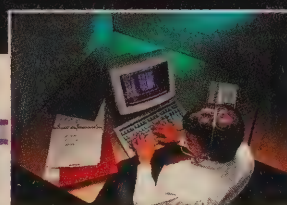


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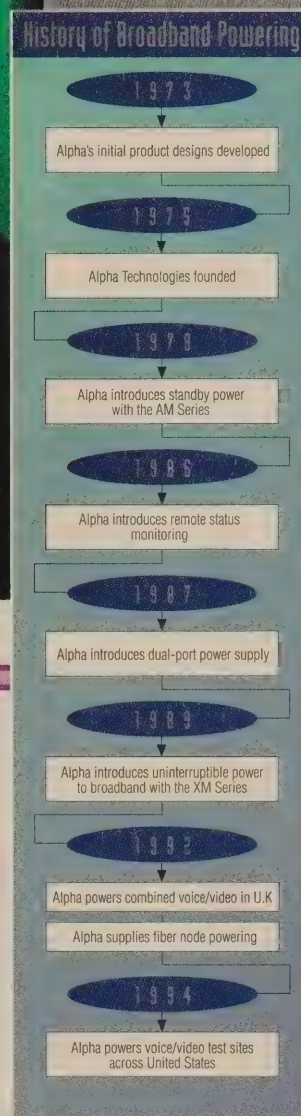
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Fax: (604) 430-8908

United Kingdom
Alpha Technologies
Tel: +44-1279-422110
Fax: +44-1279-423355

Germany
Alpha Technologies
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Brazil: Changes for growth in Latin America's largest market

By Jonathan Mead Baker

As this is being written, about 60 days before Brasil Link '95 (to be held in Rio de Janeiro, April 18-20), I cannot help but reflect on the changes that have occurred over the last few months and the others yet to come in this new and still exciting pay TV market. When John Shackelford and I conceived of the first Brasil Link in November 1992, at the same table at which I am writing this piece, the industry was an infant, perhaps even a prematurely delivered one. Today it has passed puberty and is well into a rapidly adjusting adolescence. It has dispensed with many, if not all, of the typical adolescent growing pains, but it is healthy, hearty, robust and growing. And with an estimated 400,000 pay TV households (January 1995) after three years of existence and a potential estimated at between 6 million and 8 million, "growth" is what continues to attract manufacturers, programmers, operators and investors.

After working more than 13 years in Brazil and other Latin American countries in one or another aspect of the communications trade, I have learned that one of the mottoes of the region, and especially of Brazil, should be, "The only constant is change." Unfortunately, too many times during those years, the changes have been for the worse, socially, economically and politically. But now, a few days before Carnaval (deadlines for monthly magazines are murder), it appears that rather than "falling into the samba" to forget our woes, we can celebrate the beginning of a wave of changes for the better — changes that will be good for Brazil, good for Brazilians and good for the pay TV industry.

Brazil is still enjoying the continued success of the *Plano Real* economic reforms (introduced last July) that have dropped inflation from about 30%

monthly to nearly zero. With over US\$40 billion in reserves, it seems to be, unlike neighboring Argentina, reasonably well-insulated from the so-called "tequila effect" produced by Mexico's massive end-of-'94 devaluation. But what most stirs the blood is the widespread feeling that with the new social democratic government (which, at the time this is written, is not halfway through its first 100 days), the real and fundamental changes in social and economic policies necessary for a genuine new leap forward in growth are really starting to take place.

1995: A watershed year

For the telecommunications industry as a whole, this is particularly true. This year promises to be a year of massive changes for the better. The government of Fernando Henrique Cardoso and his new and refreshingly enlightened Minister of Communications Sergio Motta have already committed themselves to both eliminating the distinction between foreign and domestic capital investment, the breaking of state telecommunications monopolies, and a rationalization of the process of license concessions, eliminating (or, at least minimizing) the politicization that has plagued the industry for well over a decade. Minister Motta, according to the *Revista Nacional de Telecomunicações*, wants to "radically change the panorama of the (telecommunications) sector with an ambitious and ongoing plan of investment, better coordination ... and an ethical pact ... eliminating corruption in the acquisition of equipment and services."

For pay TV, this has an immediate relevance, the reflections of which will likely already be being felt by the time this article goes to press. Minister Motta has said, "This country must change," and one of the important changes is his decision to conduct the process of regulation of the new cable law (and the existing MMDS policies) within the new

criteria he is proposing for open TV and radio licenses. According to Rubens Glasberg, editor and publisher of *Pay TV*, Brazil's leading domestic specialized publication, Motta intends to eliminate what he calls the "discretionary character" of the concession process that has effectively controlled activity to date. He wants the criteria to be "competitive and impersonal." Anyone who has had experience in this region will recognize this as a formidable challenge, if not mere political rhetoric, but Motta and President Cardoso appear ready to act decisively and with dispatch.

New velocity in government action

It has been announced that the body of regulation enabling the Cable Law (signed January 6) could be ready as early as March. It is expected that this body of complementary regulations will





Robert Gruen

be promulgated by presidential decree, and February 15 has been set as the date for the final draft to be presented to the minister for review. At the same time, in accordance with the law, the draft will be submitted to the Council of Social Communications (*Conselho de Comunicação Social*) of the Congress, an entity composed of representatives of unions, political parties, industry associations and other groups who are considered interested parties, which advises the Congress on such issues. By law, this entity has 30 days to manifest itself or the decree automatically goes into effect. (This may prove irrelevant on this first go-round since, as of this writing, the new Council has not yet been formed.)

Whether the Council is re-formed in time or not, the most influential group will be the task force named by the minister to put the draft together. Once again not afraid of controversy, Motta

drafted as its leader the formidable former federal congresswoman from Sao Paulo, Irma Pasoni. Pasoni lost her bid for re-election last fall, but had gained enormous prestige as the chair of the Commission for Communication of the Congress. Then why should the nomination be controversial? Pasoni was a long-time member of the Workers Party (*Partido dos Trabalhadores*), which, having lost its bid for the presidency, has prohibited its members to accept government posts. Pasoni chose this week to accept the minister's invitation and resign from the party.

One of the immediate impacts of Pasoni's acceptance was to reinforce, in consultation with the minister, his tendency to drop the matter of seeking a separate MMDS law in Congress (to replace the existing ministerial policy decree that regulates the sector). Motta was quoted recently as declaring, "We'll try to deal with this while we're regulat-

ing the Cable Law. It makes no sense to make a specific law for every new technology that arises in the same sector."

Technologies: Room for all

That comment shows a remarkable insight for someone who has been in office for only a few weeks. Important industry players and observers early recognized that to make pay TV physically accessible to the 6-8 million potential Brazilian subscribers, heterogeneously spread over a total market of more than 30 million TV households in an area larger than the continental U.S., would require a multiplicity of signal delivery technologies.

One must remember that Brazil has an income distribution so lopsided that 15-20% of households account for 60-70% of the consumption of advertised goods. Given a January 1995 minimum monthly wage of about US\$77, it is clear that \$30 per month premium service is

not within every family's reach.

But, outside the already identified concentrated pockets of relative wealth or prosperity where cable makes excellent sense, operators still need to reach the economically qualified subscribers that are sufficiently dispersed as to make cable not viable. The two major players in the market, TVA and Globosat, both opted at the beginning of the business in Brazil for wireless technologies for exactly this reason; Globosat with four-channel analog DBS (direct broadcast satellite, or DTH, direct-to-home) and TVA with MMDS. After some initial problems with compatibility with the existing parabolic installations (due to size problems for the capture of C-band analog DBS), Globosat, in 1993, opted for a strategy of acquiring participation in existing DISTV (distribution of TV, or cable) licenses — renaming the operating company NET Brasil — and a concentration in this area. Obviously, in spite of a concentrated building program, there was a considerable lead time in actually putting systems on line.

In the meanwhile, TVA concentrated on a basic two-pronged strategy: operating the MMDS licenses it had obtained while furnishing (including to a majority of NET Brasil affiliates) programming to independent cable operators, and acquiring, in partnership or alone, DISTV licenses in Sao Paulo and other key markets. Given the ability to more immediately deliver service that MMDS offered (even with limited frequencies within the spectrum until the end of 1994 and only seven licenses), TVA was able to gain a considerable lead in the market (up to a 73% share, including indirects) and at last audit (January 1995), continued to maintain a 67% market share.

The advantages of MMDS, especially since TVA introduced digital compression using the General Instrument DigiCipher system last year, appear to have become manifest to a good many would-be operators in Brazil. When applications for new licenses were reopened in February of 1994, over 1,100 separate market applications were filed by more than 130 different applicants.

Due to a political agreement to hold action on these applications until Congress finally acted on the cable law (and a lack of staff to process

and evaluate them on which Minister Motta has already acerbically remarked), the applications for the first 15 markets to be considered were opened to public comment in January 1995. It is expected, however, that as soon as the regulatory framework task force completes its initial task, at least 50 and perhaps more may be issued still this year. These new licenses will be for 15, 16 or 31 channels, depending on whether there is also a cable concession in the same market.

Wireless alternatives are well positioned

MMDS, even with its low infrastructure cost per subscriber and early revenue stream capability, is not the only wireless technology to be watching in Brazil. In spite of Globosat's relatively unsuccessful first efforts with analog DBS in 1992-93 (mostly due, according to industry sources, to the inability of a large percentage of installed parabolics to capture the signal) it has maintained a certain subscriber base even with its limited four-channel capacity.

More important, with over 1.6 million parabolic antennas already installed in Brazil (and about 50,000 being sold each month) DBS/DTH, specifically digitally compressed systems, already have a very conservative 7 million-plus homes passed. (Note: If only 200,000 of the 1.6 million are installed in multiple dwelling units with an average of 30 apartments per MDU, that's 6 million homes right away, plus the remaining 1.4 million in single family homes.)

That's a number that has led TVA to already launch a digitally compressed C-band DTH 12-channel offering that

"The key to successful implantation of ample national coverage for DTH will be the formation of a network of retail outlets and technical support."

will cover the entire country, and to sign an agreement with Hughes to launch a high-capacity Ku-band DirectTV system by the end of this year to be carried on Galaxy III. This system will use the easy-to-install compact dishes. Globosat has yet to manifest itself clearly regarding either digital compression or Ku-band usage.

The key to successful implantation of ample national coverage for DTH will be the formation of a network of retail outlets and technical support. The idea is that antenna stores, consumer electronics outlets and the like will offer antennas and decoders, as well as technical assistance, on a commission basis. TVA already has detailed plans and a good initial response to this scheme.

But the most recent development, though it is difficult to gauge the significance of it as yet, was outgoing Minister of Communications Djalma Moraes' mandate of 30 LMDS concessions (local multipoint distribution service operating in the 26-28 GHz band). These concessions were divided among 10 entities, including TVA, Globosat, RBS (a TV Globo affiliate company) and a variety of other companies, including at least one

owned by one of the nation's largest and best connected civil engineering and construction firms. With capacity for up to 50 channels of pay TV, plus data and telephony, this system, patented by CellularVision Technology & Telecommunications Ltd. Partnership, is more clear proof there is room in Brazil for any technology that can offer the sort of special capabilities this enormous market will require to reach its full potential.

While on the subject, it might be appropriate to cock a genteel snook and murmur a collective "we told you so" on behalf of this writer, Walter



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“Motta intends to eliminate what he calls the ‘discretionary character’ of the concession process that has effectively controlled activity to date.”

Longo of TVA, John Shackelford (friend and frequent collaborator) and all the rest who tried to stop the ridiculous public advertising debate over which technology was better. As all of us have said, on occasions too numerous to recall, and each in his own fashion, in an emerging market, trying to convince prospective subscribers that one technology is better or worse than another is counterproductive to growth.

Potential subscribers, unless they are engineers (and not all of them, at that) don't understand the different technologies, don't care to learn about them, and undermining confidence in one undermines confidence in them all. If I may be so bold as to quote myself from numerous speeches and articles: “What the Brazilian subscriber wants is a clear image on his TV screen, of appealing programming that cannot be obtained elsewhere, at an accessible price. If he can get this, he doesn't care if the signal arrives by cable, wireless system, mail, on horseback, or delivered by two pygmies in clown costumes.”

Open new fronts for programming

The potential of Brazil was not lost on U.S. programmers. MTV, HBO (both ventures with Abril/TVA), Discovery, Fox, Disney, Playboy, ESPN, CNN, TNT, MTV Latino and others have been here a while. Although initial programming contracts were nothing less than abusive in terms of the guarantees demanded (and ingenuously accepted) things have been sorted out by long and arduous negotiations. Costs, and prices, now make more sense for everybody. New foreign programming options are constantly being reviewed.

But one of the most gratifying things about the growth of the market is the prospect of it being able to support new independent production here in Brazil. This is already happening with soccer (“football”) to everyone east of Bangor, Maine and west of Seattle, Washing-

ton). TVA is forming its own local coverage operation, with exclusive transmission rights to the most important Brazilian championships that will be retransmitted worldwide via ESPN. There are plans afoot for a variety of new domestically produced (as opposed to packaged) programming that, among other things, may pump some life back into the long mordant Brazilian film industry.

Convergence of opportunities

All the factors for development seem to be moving into place: a new administration committed to opening and revitalizing the whole field of telecommunications and rationalizing regulatory frameworks licensing and concessions procedures to attract foreign investment; investors like Chase Manhattan, Warburg Pincus, already in the market and others too numerous to name making plans to stake out their positions; an expanding range of technological options that will create the means to offer an increasing range of more and more sophisticated services; lots of new programming options; and, perhaps most important, committed and competent Brazilian companies that have paid the heavy entry price for pioneering a new industry and continuing to invest in its growth.

No, Brazil has not miraculously and instantly become a completely predictable and stable market, either economically or politically. Its social and educational problems have not ceased to exist. But it seems to be getting onto the right track. The changes we are seeing are ones that give us confidence that there will be increased growth and opportunities across the spectrum and especially in the telecommunications sector, in which pay TV — with the increasingly convergent services that its infrastructure can provide — will both play a key role and offer ever more opportunities for new and profitable enterprises.

There will be a couple of thousand interested people talking about these and other issues at Brasil Link '95. I certainly hope you can join us. **IC**

Jonathan Mead Baker is president of Communication Concepts do Brasil, a market development consulting firm specializing in the pay TV industry and South American Bureau correspondent for “International Cable.” He also acts as president of the annual Brasil Link Executive Congress.

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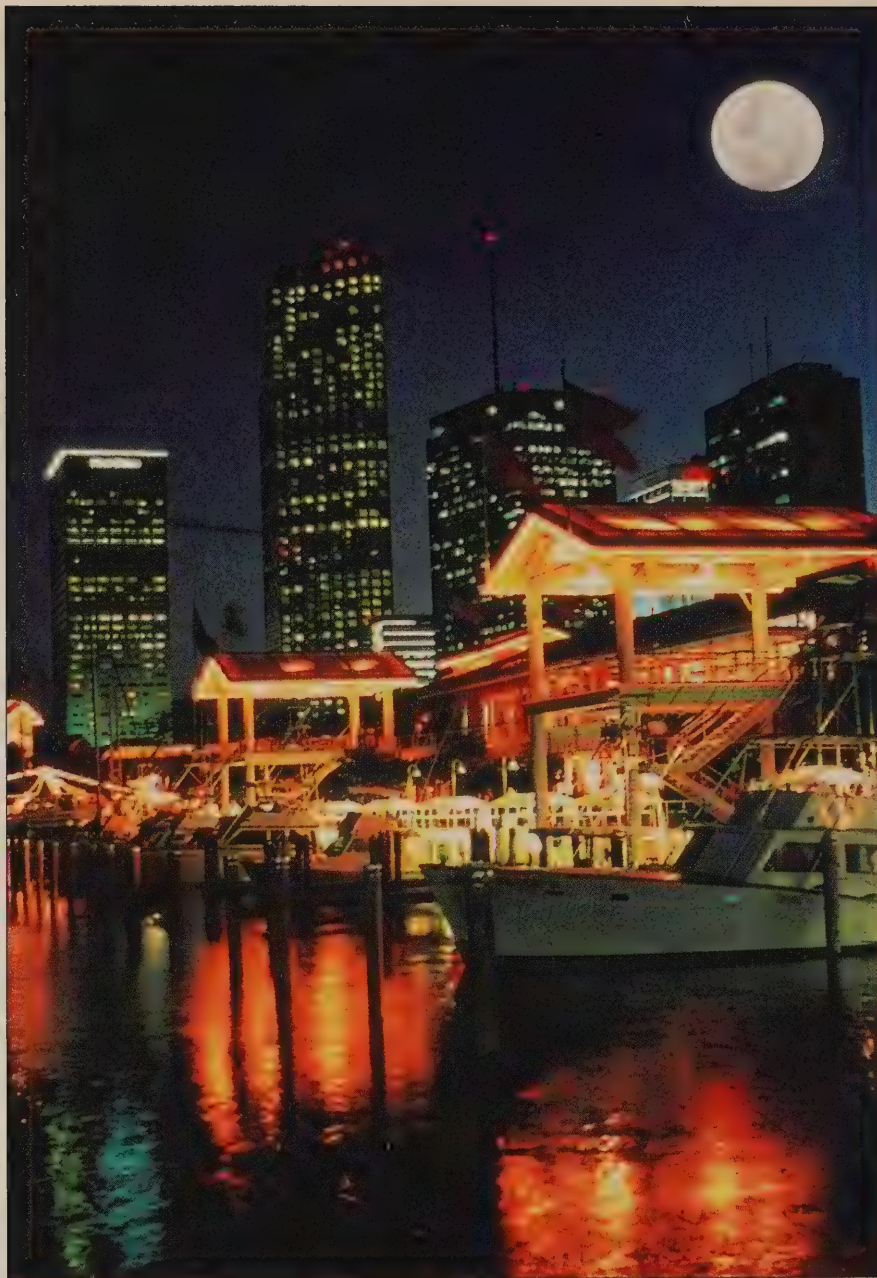
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Metro-Dade County and the Greater Miami Convention & Visitors Bureau

Miami: Launch pad for Latin America

By John Shackelford

Miami, best known for its sunny beaches and fashionable art deco district, is a prime example of the social and economic change occurring in the United States. While there has been considerable social unrest and an increase in

urban crime largely due to tidal waves of new immigration, Miami continues to grow and prosper as new markets open up in Latin America and Europe. Miami is increasingly becoming a center for international commerce, banking and communications. "Just look at a map," said Jeffrey Sharlach, president of the Jeffrey Group, an international

public relations firm, "there is Miami jutting out — dangling in the Atlantic ocean and pointing south. The city is perfectly situated for doing the job in Latin America."

One of the fastest growing industries in Miami is TV programming production and the uplinking and downlinking of new satellite networks aimed

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at the Spanish-speaking markets in Latin America, Spain and the United States. Gary McBride, president of GEMS Television, points out that many communications companies have built their businesses in Miami, including his company, along with Hero Productions, Discovery, MTV Latino, Telenoticias, SUR and now the Travel Channel. Miami also has the Gamma Group, which distributes digitally compressed signals to Spain. According to McBride, "No city broadcasts to as many countries as does Miami; and none of this existed just two years ago. It's incredible!"

Loic Gosselin, senior vice president of sales and marketing for Telenoticias, the recently launched 24-hour Spanish news network, feels the primary advantage of Miami is logistical.



The Discovery Channel represents the cultural diversity of Miami. Left to right: Javier Justo, affiliate sales manager (Peru); Camilo Bernal, affiliate sales manager (Colombia); Dawn McCall, vice president/general manager (U.S.); Dina Suggs, affiliate sales manager (U.S.); Asuncion Marin, marketing director (Cuba).

"Miami is the capital of Latin America and our objective is to do TV news for Latin America." He says that as recently as five years ago, when Reuters began to think about a Latin American service, they had to think in terms of airline connections. "During that time, most news stories were on tape and we needed to transport them. We had to think in terms of the best flight connections between Rio, Buenos Aires, Santiago and the United States. There were 450 flights per week to Latin America from Miami. The second hub was Rio de Janeiro with only 45."

Paola Prado-Machado, senior account executive for Telenoticias, feels that what is important is that Miami is geographically well located: "New York and Los Angeles are the media cen-

Survey provides view of multichannel viewers

The Latin American Cable Television Association of Programmers (LACTAP) announced the results of a major media study aimed at providing information to prospective advertisers. The study, "Los Medios y Mercados de LatinoAmerica," was conducted by Audits and Surveys, located in New York City, under the direction of Paul Dinado. Six thousand respondents from 19 Latin American countries including Puerto Rico completed questionnaires. The study utilized methodology accepted in both the U.S. and Europe.

"The most important result of the study was the fact that in the homes that have multichannel television, 50% of the viewing time is spent watching a multichannel service," according to Sandy Wax, international research director for The Discovery Channel. Charlotte Leonard, senior vice president for TNT/Cartoon Network, Latin America, agrees: "That is a far stronger number than in the United States, where the average is about 25% of the time."

The study revealed that the multichannel audience is upscale with a high disposable income. It also pointed out that the average median income for Latin America is US\$5,712, whereas the average multichannel subscriber median income is \$8,704. Barry Koch, director of research for TNT, cautions, "You cannot use the income statistics in an absolute sense. When you view them directionally, it is quite clear that cable penetration increases in higher income households."

Discovery's Wax notes that the income information was collected from survey respondents and it should not be treated as gospel. She thinks a critical point for potential advertisers is the reach that cable provides. The study revealed that there are between 9.8 and 13.4 million

homes with a multichannel service. "The audience is upscale and there are very few panregional magazines or print vehicles. Cable is the only media that offers a cost-effective panregional deal."

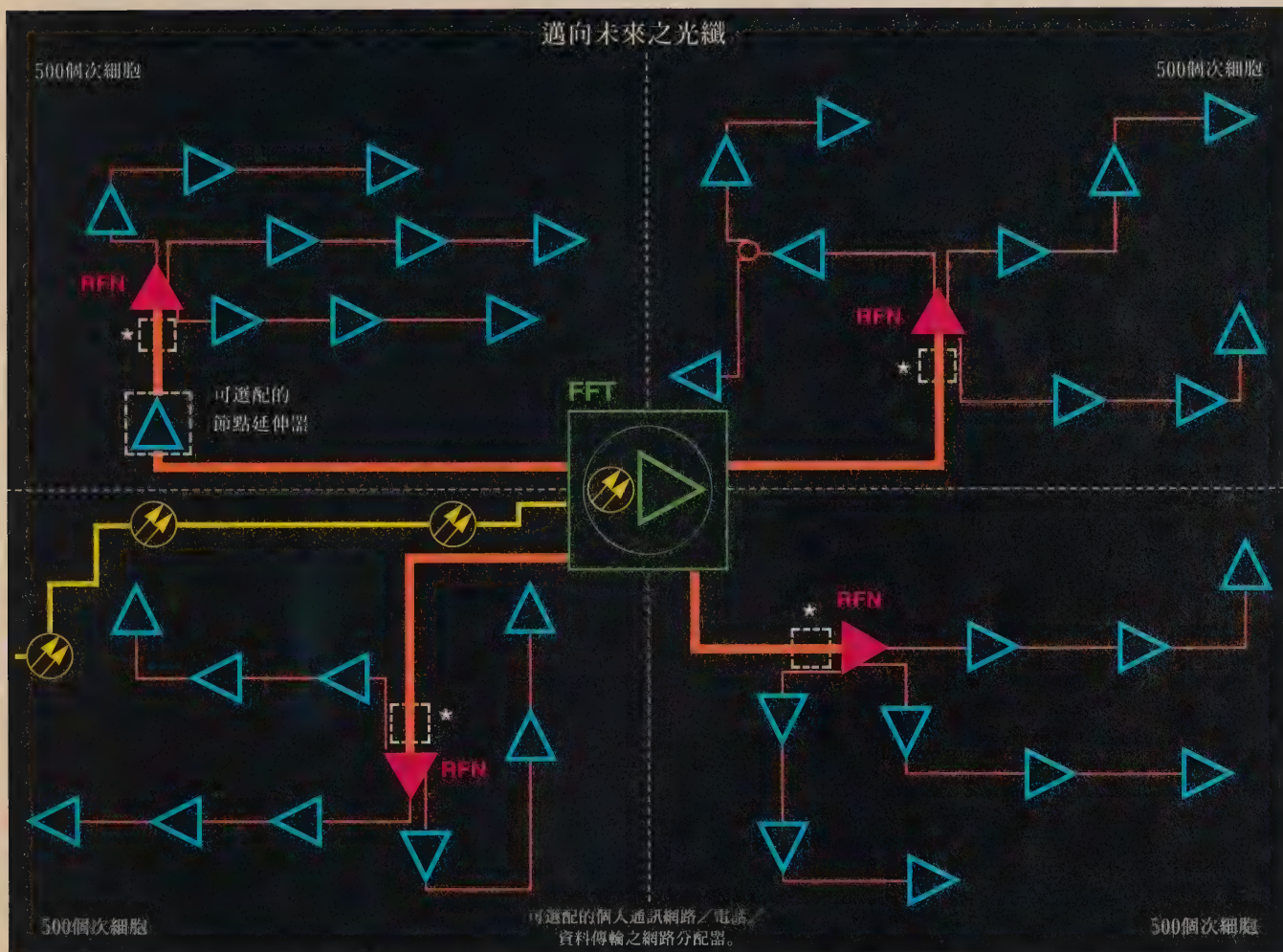
The survey confirmed many facts everyone believed but could not prove. One compelling fact is the high usage of consumer electronics. Koch says the survey represents 90% of the total households in the countries surveyed or 82.3 million homes. "Of the total households, 98% have a television, 50% have a telephone and 40% have a VCR." These statistics are substantially higher than those previously released, reflecting the economic changes Latin America has undergone in the past few years.

Leonard feels that the data in the survey will allow advertisers and agencies to cross-tabulate and define which networks have a propensity to attract the viewers they are after. "One of the things we see is the number of children watching TNT or the Cartoon Network. With 50% of the homes having children 12 or younger, that is important information for us," he says. Wax adds, "Among the professional group, Discovery has the highest viewership with twice the concentration of the average multichannel audience. We will use this fact in customizing pitches to potential advertisers."

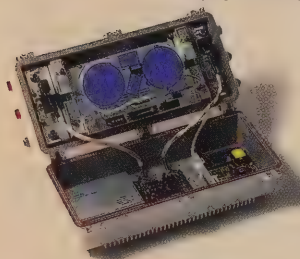
LACTAP plans to conduct a similar study once, perhaps twice, a year. At this point, the study has created a frame of reference where none existed before. The study showed the multichannel audience is large and that the new satellite networks are very popular. Los Medios y Mercados de LatinoAmerica is a beginning, not an end. Lea Sloan of Gordon, Sloan, Diaz Balart, a Miami-based public relations firm, says that in terms of being an authoritative source, there is a long way to go. "However, taken as a whole, it underscores the value of cable, making it an important part of the advertising mix." — JS

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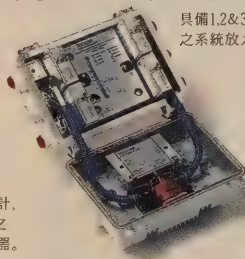
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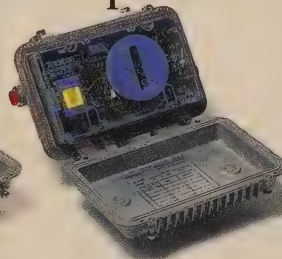
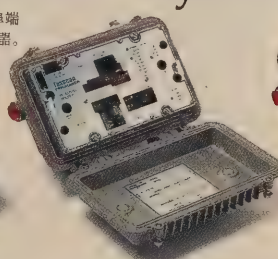
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ters, but they are further away and have other items on their agendas. They look more towards Europe and Asia. We think of Miami as the third major media center in the U.S., but its focus is on Latin America, the most obvious trading partner for the United States.

"We have people in our organization from just about every country in Latin America," she says. "I was with Reuters in Washington, D.C. When I moved to Miami, my colleagues were horrified that I was moving to the Deep South. It turns out that Miami is much

more cosmopolitan than Washington D.C. I have yet to meet a person here born in the United States. Everybody is from Latin America and Europe."

Another reason to be in Miami is the cost of telephone service. Gosselin points out that in the news business, there is an incredible amount of communication on the telephone. Phone calls from Buenos Aires to Miami are US\$4 per minute. The other way around it is \$1 or less. "We had no choice but to look at the evidence. Miami was the only place we could be."

"One of the fastest growing industries in Miami is TV programming production and the uplinking and downlinking of new satellite networks aimed at the Spanish-speaking markets in Latin America, Spain and the United States."



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Strategic advantages

News stories are now transported via satellite and Miami has the advantage because it has the teleports. One of the first visionaries to really understand Miami's strategic role in the international TV business was Robert Bahar, a North American of Cuban descent, who founded Hero Productions with his Argentine partner, Daniel Sawicki. After spending six years with Telemundo and seeing where Spanish television was headed, he decided to leave and start his own production house.

Knowing that production is a key part of any satellite TV programming headed to South America, he built his new company with production facilities and a teleport. "I knew these were the two missing links," he says. "This is what the broadcasters from Latin America were telling Telemundo, but they couldn't do it on their own."

Hero is the center of satellite signal transportation between the U.S., Latin America and Europe. Some networks, such as The Discovery Channel, send their programming from a remote playback facility to Hero through a fiber link. In other cases, Hero receives tapes from the networks and manages the playback process itself. In addition, Hero has two complete studios, a remote production truck and postproduction capabilities. Bahar declares, "We have the know-how, so if you want to get on the air quickly and inexpensively we will get you there. We can create the promos, the on-air look, and produce the programs. We have master control, trafficking and uplinking. It is a one-stop shop. That is why our slogan is 'We Are Television.'"

The resources available in Miami allow new satellite networks to imple-

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ment any concept in a very short period of time. Dawn McCall, vice president/general manager for The Discovery Channel, came to Miami alone in January 1994, and by April had put together a full staff. By May, she had successfully launched Discovery in Latin America.

McCall says, "The U.S. Hispanic market is a lot different from the Latin American market. We needed people who understood that, and Miami is where the pool of people existed to draw upon. For example, our marketing director has a background with companies like Burger King in Latin America. She understood the mind-set, and how to market in these countries. We wanted access to quality people because we had to move fast and did not have time for training." McCall also says that an additional benefit of being in Miami is the flavor and feel of the city. "We need to be surrounded by the feel and the sound of the Latin culture, because that is what we are."

Miami's ambiance played a big role in SUR's decision to relocate from Peru. Luis Guerra, president, U.S.A. for Canal SUR, says his company moved to Miami for three basic reasons: market conditions, technical considerations and a psychological advantage. Guerra states that Miami is the center for anything pertaining to the Spanish-speaking market, including television and music: "Miami is a crossroads city. Not only do you have access to the Latin American markets but also to the growing Latin market in the United States."

In Latin America, there are 30 million households with incomes of US\$15,000 or more. In the U.S. there are 6 million households with the same demographics, making the U.S. Latin market significant in terms of the total market.

From a technical standpoint, Guerra continues, it is easy to find what you need in Miami. First, there is a large community of Spanish-speaking technical people. Second, spare parts are a phone call away and if you need special equipment such as cameras or a remote production truck, it is easy to rent. "In Miami you are close to Latin America but have access to the vast resources in the United States, and that saves a lot of money. This was a major consideration for us."

Guerra feels that psychologically, being in Miami gives SUR an edge over the competition. With a large number of U.S. corporations moving to

Latin America, SUR felt it was time to head north to do business. "We realized that communications and television are going to be global businesses. From our experience in Miami, we have gained an understanding of the corporate culture in the United States. This will be a major advantage as we move into the next phase of competing with multinational corporations creating global networks."


A neutral city

Miami is a microcosm of the various countries in Latin America. While there

is a large Cuban contingent, every country in Latin America is well-represented in Miami. "This makes Miami a neutral city" according to Alex Pels, supervising producer for MTV Latino. "Neutrality is important because an Argentine firm may resent its country being represented by a headquarters in Mexico City."

Pels says that MTV studied the pros and cons of moving to Miami as opposed to Mexico City or Buenos Aires. Miami had the best combination of factors and MTV moved there. However, they found it necessary to have


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Hero's uplink facility is the transmission center for the Miami-based satellite networks. Pictured is the company's playback system.

production in every country to stay in touch with the youthful MTV market.

"Interactivity with our audience is very important," says Pels. "Teen-agers change their minds overnight and if you're not totally in touch, you will produce shows they do not like. We cannot just plug into the Miami scene."

With U.S.-based Telemundo and Univision, over-the-air networks both located in Miami, the city is the center for the production of soap operas, game shows and other network shows. Hero's Bahar says, "As a place for the broadcasting community, Miami is

great. What else could you want? A great talent pool with some good management and no union hassles is television made easy."

Miami is considered to be the Beverly Hills of Latin show business. According to GEMS' McBride, most of the successful Latin American entertainers have second homes in Miami: "If you need to find talent, it's here. If you need to import talent from Latin America, it is easy to do because everyone loves Miami. We've got the weather and the beaches."

Up to this stage, McBride points out, the new satellite networks in Miami have produced little in the way of new programming, concentrating on modifying and distributing existing product for the Latin American market. This is changing fast. GEMS has created a breakthrough show, "Sin Fronteras con Maria Laria," which is co-produced with TV España (TVE) in Spain. "The show looks at universal themes of interest to all women. That is why we refer to it as 'Sin Fronteras' — meaning no international boundaries," says McBride.

This type of production is expensive to do. The budget for "Maria Laria" is

"In Miami you are close to Latin America but have access to the vast resources in the United States, and that saves a lot of money."

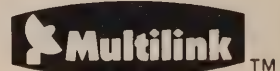
US\$3-4 million annually, and most cable networks cannot currently afford to do a weekly show for this price. GEMS found a partner in TVE, the number one network in Spain, creating a high-quality show within sensible economic parameters.

"That show is an example of what we will be doing in Miami," says McBride. "We are looking for creative co-production opportunities. I think that will be the trend for all the networks. This will allow us to put good quality on the screen and not have all the costs."

Ken Lorber, vice president and general manager for Post Edge Productions, is a New York City production veteran who moved to Miami several years ago. Post Edge, which has been

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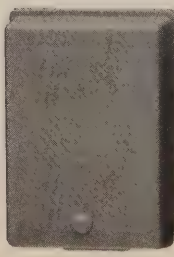
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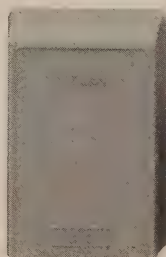
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in Hollywood, Florida, for 27 years, is in the final phase of creating a multimillion dollar expansion project in Miami Beach. The new facilities include a state-of-the-art, digital production and postproduction center and a spacious new production studio. Post Edge's clients include The Discovery Channel and MTV Latino. Lorber predicts spectacular growth in Miami's production capacity to meet the needs of growing Latin American business. He feels that the new satellite networks will increase in number and they will need more original product as they are on the air 24 hours per day.

There are many compelling reasons to be in Miami. There are major companies in South Beach and Coral Gables including MTV Latino, Discovery, Sony Records, Paradise Video, recording studios and most of the major advertising agencies. It is nice to be close to them. But, according to



Telenoticias is among the many communications companies that have built their businesses in Miami.

Lorber, the number one reason to be in Miami is that it is a happening place with a great atmosphere for creative people — creatively selling, creatively producing, or creatively transmitting. "Creatives enjoy the theater, good restaurants and being in a stimulating environment," says Lorber. "Miami is a mini New York City. I have entertained many producers at the sidewalk cafes on Ocean Boulevard. We'll be sipping cappuccino in the



GEMS' "Sin Fronteras con Maria Laria," a co-production with Spain's TVE, allows the network to put good quality on the screen and not have all the costs.

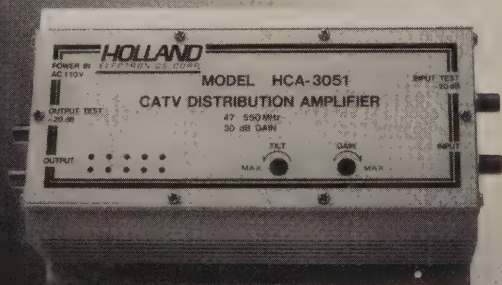
warm sun by the beach, and they will say, 'My god, I see why people are rushing to be here.' "

Miami is not all peaches and cream. There are the long, hot, humid summers to contend with. In Hollywood, California, there are over 500 sound stages. In Miami there are only six. But if the passion of those involved with the creation of this budding new industry is any indication, Miami will continue to thrive as the dynamic new epicenter for the production and distribution of TV product

for the Spanish-speaking world. **IC**

John Shackelford is a regular contributor to International Cable magazine. He is currently assisting Latin American pay TV operators obtain foreign capital.

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At first glance, selling Europeans American entertainment seems a breeze. German bookstores, for example, carry "Von Winde Wermecht" ("Gone With the Wind"). First impressions are deceptive, though.

Turner's epic expansion overseas

By Charles Haddad

Ever wonder what "yabba dabba doo" sounds like in Mandarin? The Chinese, for one, no longer have to wonder. "The Flintstones," Hanna-Barbera's famous cartoon series, is raining down on their TV sets, courtesy of Ted Turner.

Indeed, thanks to Turner, Fred Flintstone's signature cry can be heard in a dozen different languages from Beijing to London. It's all part of Turner's effort to establish his company as a world entertainment power. Few are better positioned to do so.

His company, Atlanta-based Turner Broadcasting System Inc., owns one of the world's largest libraries of cartoons and movies. It's also a leading producer of news programming through its CNN cable channel.

"We envision a series of networks that circle the globe," says Terence McGuirk, an executive vice president who is considered Turner Broadcasting's second-in-command. "We want to be in every TV market."

The company is well on its way to meeting that goal, but it will not be without cost. In fiscal 1993, it had a US\$40

million operating loss spent on starting and expanding new entertainment channels in Latin America and Europe. The company is now rolling out its entertainment programming in Asia.

Already, Turner Broadcasting's new international channels have attracted nearly 24 million viewers. International sales account for about 14% (or \$300 million) of the company's total revenue of nearly \$2 billion. That's a good start. But company officials concede that they have a long way to go before TNT and Cartoon Network become truly international.

The statistics are daunting. There are 860 million homes with TV sets worldwide. Right now, Turner Broadcasting's entertainment programming is in less than 3% of those. "Compared to other American companies, like Coca-Cola, we have just stuck our toe in the international water," says William Grumbles Jr., Turner Broadcasting's vice president for worldwide distribution.

Overcoming setbacks

Every one of Turner Broadcasting's international homes has been hard won. In Asia, the company has seen two of the satellites it leased for distribution

blow up at launch in the past four months. Those Apstar satellites were to extend Turner Broadcasting's entertainment programming to India and Australia. The company has made other arrangements now, but at a greater expense.

Because few foreign newspapers list Turner Broadcasting's shows, it's difficult for Europeans to know what's available. In Belgium, no one can even get TNT/Cartoon Network. It has been kicked off the dial. And in France the company has had to start over from scratch because of a spat with government officials. The French and Belgians fear Turner Broadcasting would swamp their TV markets with U.S. shows, driving out indigenous programmers.

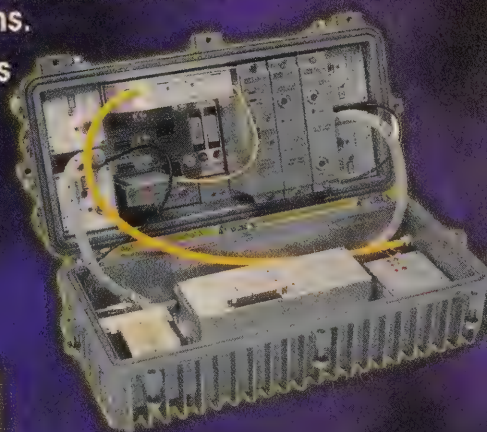
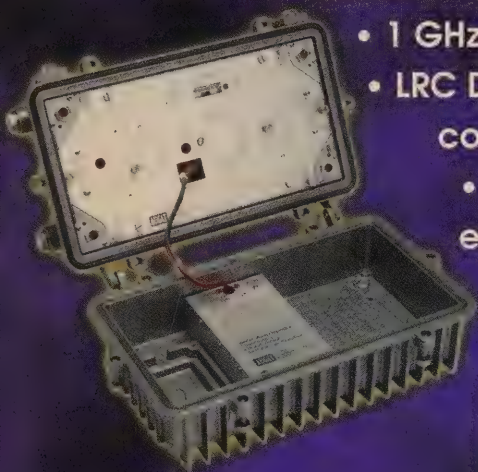
Overseas expansion has proved expensive, too. In Germany, the company lost \$19 million in 1993 on a German language news channel. Burt Reinhardt, Turner Broadcasting's premier budget cutter, has managed to slash costs at the German channel, but it continues to lose money.

The biggest setback, though, may have occurred in Russia. Turner Broadcasting gave up a 50% stake in what might become one of Russia's first net-

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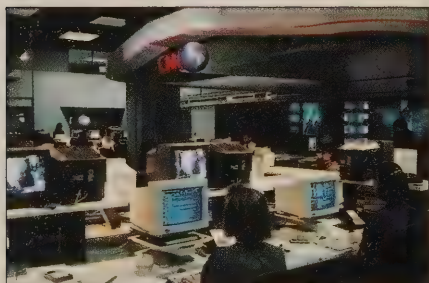
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Reader Service Number 110



TNT/Cartoon Network employees use Macintosh computers to stop Tom from clobbering Jerry too much for audiences that may find the original versions too violent.



After years of losses, CNN's international arm, CNNI, has become profitable.

work-like TV channels, when its Russian partner asked it to bow out over foreign ownership issues. Indeed, this channel, called Moscow TV6, has played a prominent role in providing live coverage of the war in Chechnya that contradicted

the government's official version. TBS, however, continues to provide it with programming.

Turner Broadcasting's top executives are unshaken by these setbacks. They never expected international expansion to be easy. The effort, though, has been classic Turner.

"Historically, we've tried to be ahead of the curve," says McGuirk.

"We try to get into markets before others." And that means spending much money upfront and foregoing a quick profit. "I see ourselves turning the corner in three to five years," says Ross Portugeis, an executive vice president leading entertainment's international expansion.

International news

In essence, the company's entertainment channels are riding on the coattails of CNN, the 24-hour news channel Turner Broadcasting took worldwide in 1985.

Today, CNN is proving the long-term value of international expansion. After years of losses, the international arm, CNNI, has become profitable. Five years ago, CNNI lost \$3.12 million on revenue of \$13.6 million.

CNNI has built its success on a very small base. It captures only .001% of the world ad market. Now Turner Broadcasting wants to broaden the appeal of its news programming. So it is experimenting with ways to attract viewers

other than English-speaking business executives and government leaders interested in world affairs.

The linchpin of those experiments is N-tv, a 24-hour German language news channel. Headquartered in a bullet-riddled building one block from Hitler's bunker, N-tv is generating local news for Germans.

N-tv is really a partnership with Time Warner Inc., but Turner executives are running the show. They are spicing up the typically dry German fare of government and economic news. The Turner news executives have removed the talking heads and added stories about stolen babies. N-tv has even dressed up its daily business anchor in black shirt and bright red sports coat.

"N-tv is a prototype," says Mark Rudolph, managing director of Turner International's London office and an N-tv board member. He says that if N-tv works, Turner Broadcasting will launch similar channels across Europe.

The company has successfully cut costs, but N-tv is a long way from profitability, says Robert Ross, president of Turner International. Indeed, the channel averages daily only 2.5 million of Germany's 31.6 million viewers. Viewership, though, has hit 10 million on a good news day.

For Turner Broadcasting's entertainment channels, attracting a broad audience is more than an experiment. It is crucial to success.

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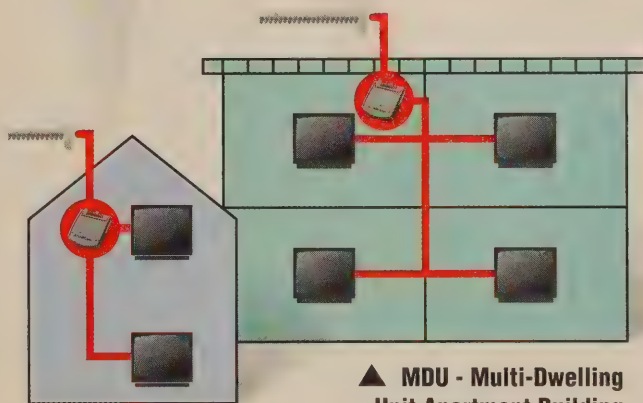
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Catching on in Latin America

Four years and 3 million subscribers later, Turner Broadcasting System Inc.'s entertainment programming is finally catching on in Latin America. Its operations, which include TNT, Cartoon Network and CNNI, are not yet profitable. But the channels did break even last year in the region.

While still a tough market, there are several positive signs for Turner Broadcasting. For one, Cartoon Network has garnered 3 million subscribers in 18 months. It took TNT more than twice as long to reach that same figure. Turner introduced TNT in 1991.

Another hopeful sign is the sudden interest by U.S. cable operators in Latin American systems. Tele-Communications Inc., for example, recently bought Cablevision. Based in Buenos Aires, Cablevision is the largest cable operator in Argentina.

"The U.S. operators are seeing the potential of what we saw," says Carlos Diaz, president of Turner International Latin America.

Yet another good sign was the conclusions in the first independent survey of cable viewers in Latin America. It was conducted by Audits & Surveys Worldwide for about 20 U.S. programmers and advertisers. Audits & Surveys looked at each of the 30 markets in Latin America.

What it found confirmed what Turner Broadcasting's marketers had long suspected. Latin America's demographics are well-suited for the company's cable programming. In particular, the study found that half of all Latin Americans are age 12 or under.

breeze. American culture is everywhere in Europe. London's subways are covered in imitation gang graffiti. The "Flintstones" movie was a big hit last summer across Europe. And German bookstores carry "Von Winde Wermacht" ("Gone With the Wind").

First impressions are deceptive, though. In Germany, "Literary Quartet"

This is a market made for cartoons and movies. "For us, that number is real significant," says Charlotte Leonard, senior vice president and general manager of TNT and Cartoon Network for Latin America.

Latin America, though, remains a

tough market for Turner Broadcasting. After four years, TNT commands less than a third of the region's 9.8 million cable households. Those households represent only 12% of homes with television.

Latin America's cable market is varied and

fragmented. Half of all cable homes are in one country, Argentina. Some of the region's biggest markets, such as Brazil, are just now getting cable reception.

Although the number of cable homes is small, competition is stiff. There are some 20 or so U.S. programmers in Latin America. Among them are USA, Fox and MTV. Turner Broadcasting also faces indigenous competition. Argentina, for example, has three of its own cartoon channels.

Competition is also stiff for ad dollars. When first launched, TNT had few ads in Latin America. Four years later it has doubled its ad time to about four minutes in a two-hour movie. In comparison, top U.S. channels, such as USA or TBS, carry about 16 minutes of advertising per hour.

While ad sales remain tough, Leonard sees signs of improvement. She says, "Operators are requesting that we increase the ad time in our movies." — CH



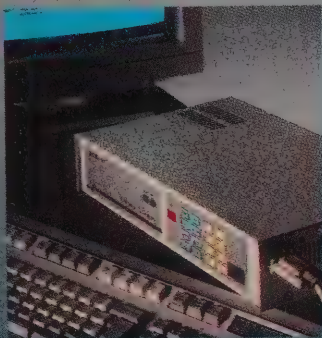
Carlos Diaz and Charlotte Leonard see great potential for Turner's networks in Latin America.

is among the most popular TV shows. It features a panel of book critics discussing literature. That's a programming format that wouldn't even register in American ratings.

European sense of humor also differs. Turner Broadcasting's most popular cartoon in Europe is "Richie Rich," about a kindhearted rich kid. The show

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“Every one of Turner Broadcasting’s international homes has been hard won. In Asia, the company has seen two of the satellites it leased for distribution blow up at launch in the past four months.”

has almost no U.S. following.

The Scandinavians like Richie Rich because no one gets hit in the head every few minutes. “We were an assault on the brains of the Scandinavians when we first launched,” says Fin Arnesen, TNT/Cartoon Network’s associate director of programming. “We had to cut some violent scenes and slow down the pace.”

While English is widely spoken among the elite, that is not true for most Europeans. Yet this is exactly the audience Turner Broadcasting is trying to reach.

“It would be foolish to think that, when a Frenchman or German goes home at night, he wants to watch entertainment in anything other than his own language,” says Rudolph.

Turner Broadcasting is not the only programmer vying for the European market. Every major company, from NBC to the Atlanta-based Weather Channel, is trying to sell its shows overseas. “The competition is among U.S. companies — not against local channels,” says Ross.

American programmers are fighting over a much smaller pie than in the United States, where TV ad sales total about \$22 billion annually. Outside the United States, TV ad sales total \$21 billion, with \$20 billion of that in western Europe.

But there is greater opportunity for subscriber growth. While still growing, the U.S. cable TV market has slowed sharply from the unprecedented surge of the 1970s and 1980s. With Turner Broadcasting’s top channels attracting 60 million-plus subscribers, “We’ve saturated the [U.S.] market,” says Robert Thalman, senior vice president of Turner International.

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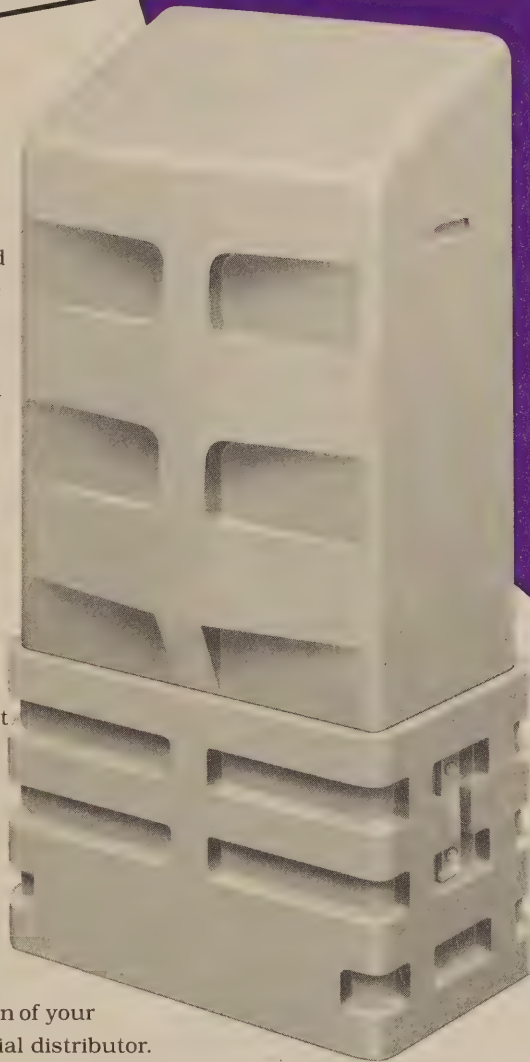
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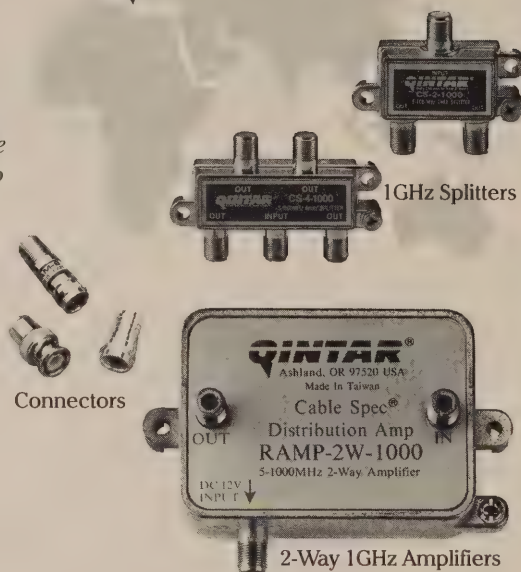


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"The Scandinavians like Richie Rich because no one gets hit in the head every few minutes."

TV markets. Longtime government control of television is giving way to private ownership. That in turn has triggered a boom in the demand for programming.

Few entertainment companies have more TV programming than Turner Broadcasting. It controls a library of 3,400 movies and 3,500 half-hour cartoons.

The company can offer its library through an already vast distribution, marketing and sales organization. Ross' international division has more than 200 employees in 11 different places. The London office alone includes 15 different nationalities. "We can expand our franchises at little incremental cost," says McGuirk.

While needing a lot of viewers, Turner Broadcasting doesn't need them all from one place. Instead, the company is trying to get a 2% market share from a hundred different markets.

"We don't need a 14 rating in Sri Lanka or an 8 in Germany," says Ross. "A little bit from here and a little bit from there will make us successful."

That strategy has led Turner Broadcasting to launch movie and entertainment channels in Latin America, Europe and now Asia. The Asian launch, which began in October, is the latest. So far, the company's TNT/Cartoon Network has garnered some 500,000-plus subscribers. That's a minuscule share of such a gigantic market.

The Asian TV market is four times that of the U.S., but size is deceptive. Only 80 million Asian TV homes receive more than three channels. And most of those channels are government controlled.

"TNT will lose money while it builds market share in Asia over the next several years," says Ross.

A European favorite

A better place to examine Turner Broadcasting's international strategy is Europe, where the company is now putting most of its resources. In 1993, the company launched TNT/Cartoon Network, a 24-hour channel that features cartoons during the day and movies at night. The fare differs little from Turner Broadcasting's TNT and

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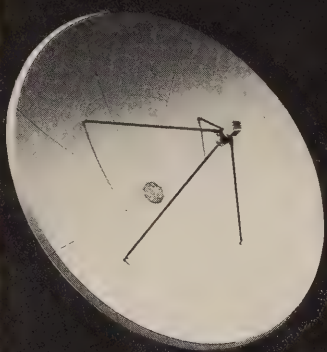
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Cartoon Network cable channels in the U.S.

TNT/Cartoon Network has headquarters in a fashionable but run-down London neighborhood. Its headquarters is beside an old canal that hundreds of years ago was the international trade highway in northern Europe.

Today, TNT/Cartoon Network ships its product via satellite and cable. The product consists of American movies and cartoons processed for European tastes.

While not a factory, TNT/Cartoon Network is factory-like. Instead of looms, workers use Macintosh computers. They make Porky Pig speak Swedish and stop Tom from clobbering Jerry too much. From a corner wall, a giant black-and-white photo of Chairman Ted smiles down benevolently.

Turner has good reason to smile. So far, Europeans appear to like what his entertainment processing factory is beaming out. An independent survey recently commissioned by the company showed Turner's movies and cartoons are favorites among those who receive them. "In France, we like to say that the most popular channel in Europe is the French-speaking TNT/Cartoon," says Thierry Mielo, former adviser to the French minister of communications.

Europeans may like TNT/Cartoon Network, but many of them have a hard time getting it. Imagine if every U.S. state were a separate country, each with its own language, own telecommunications laws and own way of receiving TV shows. That's what much of Europe and the former Soviet Union are like today.

In France, for example, only 161,000 people have cable TV. Germany, however, has wired nearly 40% of its homes with cable.

Different technologies in different countries have required Turner Broadcasting to learn how to ship its programming via any means possible, including cable, satellite and over-the-air broadcast.

Transmission, though, is the least of Turner Broadcasting's distribution problems. In Germany, for example, the company must show its cartoons only in English, which is not widely spoken. The German rights to these cartoons were sold years ago.

Worse yet, commercial TV as Americans know it is young and unsteady in Germany. There's only one profitable commercial channel, RTL Plus. The same is true across Europe.

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Suspicion and regulation

In fact, many Europeans and their governments are suspicious of American programmers. They fear it will drown out the efforts of their own fledgling production companies. To prevent that, the European Union approved a law that required 50% of a channel's programming to be indigenous.

In Belgium, government officials tried using that law to block TNT/Cartoon Network's entry. Turner Broadcasting sued and got on the air — but not for long. A court of appeals in December ordered cable operator Coditel to immediately remove TNT/Cartoon Network or face a daily fine of \$30,000. Coditel, based in Brussels, decided to drop the channel, which has 170,000 Belgian subscribers.

Belgium is a comparatively small market, but the issue of indigenous programming has flared in much more important countries. In France, for example, Turner Broadcasting got into a nasty public row over it.

It began when former French Communications Minister Alain Carignon announced he would monitor TNT/Cartoon Network for European content. Soon after, Turner Broadcasting executive Rudolph was quoted in a French newspa-



per attacking Carignon.

In essence, Rudolph was quoted as saying TNT/Cartoon Network would be around a lot longer than the French minister. Rudolph was right. Not long after his spat with Turner Broadcasting, Carignon was driven out of office by political scandal.

Before he left, though, Carignon managed to slow TNT/Cartoon Network's launch in France to a crawl. "We've had to start over in France," says Grumbles. Today, the company has less than 200,000 of France's 20 million-plus TV viewers.

Turner Broadcasting is trying to make amends. It created Turner Production SA, which will produce Euro-French programming in France. Its seven-member board includes three Frenchmen, including a nephew of former French leader



Charles de Gaulle. "France is not unique," says Grumbles. "Cultural imperialism is an issue in many countries and it has to be dealt with."

Many Europeans agree. The continent seems to be of two minds when it comes to U.S. television. "It's garbage," says Lars Bergman, a Swedish student at Berlin University. "American television is ruining the minds of our children and drowning out Europe's grand artistic tradition."

Bergman expounds at an outdoor pub in east Berlin. He's surrounded by other students, who nod and applaud. Yet moments later, the students — from Holland, Denmark and Germany — fondly reminisce about growing up with "The Flintstones."

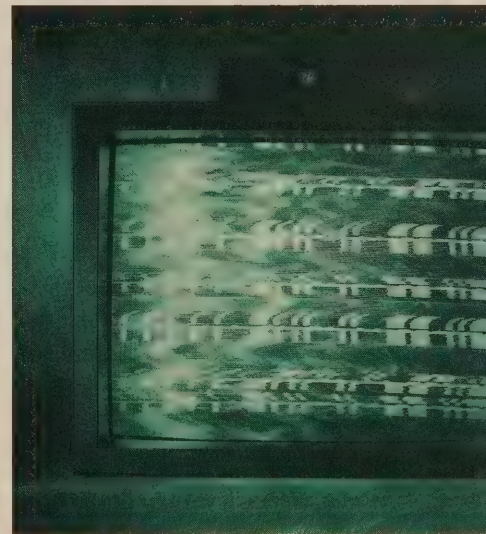
"Yabba dabba doo," Bergman shouts, and the pub explodes in knowing laughter. **IC**

Charles Haddad is the media reporter at The Atlanta Constitution in Atlanta, Georgia, U.S.A. His work also has appeared in numerous publications including The New York Times and The Chicago Tribune.

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INTERNATIONAL CABLE

APRIL 1995 41

Digital-age cable: It's not just TV anymore

By Robert Wells

In the midst of a technology-fed firestorm, the North American cable industry is hurtling ahead into a future of revamped pipelines, new digital services and new competitors.

Richard Green, president and CEO of Cable Television Laboratories Inc. (CableLabs), the Louisville, Colorado, U.S.A.-based operator-funded research consortium, speaks of "four waves of technology" that are driving this change:

- Fiber optics, replacing coaxial cable in trunk portions of the cable plant, extending ever-closer to homes — a boost to reliability, signal quality and capacity;
- Digitization, further enhancing quality while causing a fundamental "convergence" of once-disparate domains such as entertainment, publishing and shopping, all of them now merged into one digital bitstream;
- Interconnection of cable systems, meaning that formerly isolated enclaves may share resources and communicate with each other and with external networks such as the phone system or the Internet;
- Computerization, in which the entire cable infrastructure from content providers to set-top boxes is riddled with computers that manage the flow of content and the payment for billions of electronic transactions.

These changes are so fundamental, says Green, that they have created "a fourth industry" that merges the best of three huge industries' networks: cable's fiber-coaxial network design, the computer industry's client/server networking model and telephone carriers' unmatched skills at signaling and switching.

CableLabs does not seek to perform "fundamental" research or to invent or to manufacture. Instead, its staff of 50 concentrate on grabbing insights from numerous R&D disciplines and making them known to member companies through technology transfer. There is research and development work done and, from time to time, new technologies are invented and patentable discoveries are made.

The following are just some of the tasks and issues that CableLabs and its allied companies are juggling as they struggle to ride waves of change rather than be engulfed by them.

A new system architecture

A major industry focus is on upgrading cable systems. A huge, continentwide construction effort is extending fiber-optic trunk lines closer and closer to homes, eliminating noise-producing amplifiers and pushing the fiber node (the point where signals are passed off from fiber to coax) out into the network so that each serves 500 or fewer homes.

More dramatic, perhaps, has been the linking together of adjacent cable systems with fiber-optic regional rings. These linkups already have gone live in many metropolitan areas, resulting in many individual system headends being essentially shut down in favor of a regional hub, or a single shared



Richard Green: "Our vision of telecom markets sees us first providing POTS due to its ubiquity, either as a full-fledged competitor to telcos or as a second-line provider of discounted long distance calling."

satellite antenna farm and other equipment shared by systems across a broad region. As a result, reliability has risen and costs have fallen.

The upgrades mentioned so far involve simply better manipulation of analog signals, not the move to digitization.

The digital frontier

The real fireworks begin, however, when analog content is digitized by being fed into a computer and turned into binary ones and zeroes. Back in 1991, a CableLabs-led digital compression consortium challenged vendors for the first time to develop systems for digitizing and compressing video and audio, and sending them over cable systems. In many instances, the digital signals are meant to be carried as an overlay on the cable network at frequencies above where analog TV would continue to be transmitted.

By early 1995, North American MSOs had placed orders for more than 3 million set-top boxes that will decode and display up to hundreds of digital channels. They're due for

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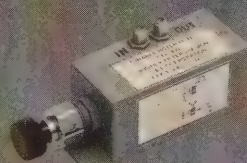
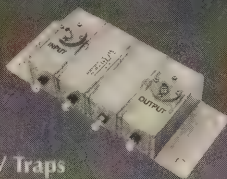
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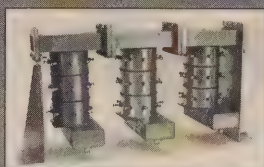
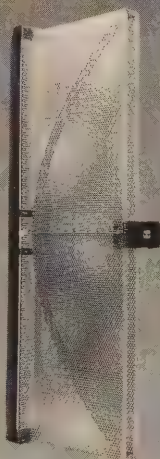
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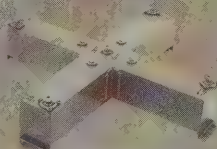
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deployment in late 1995, promising to break a channel capacity bottleneck and offer studio-clear pictures and sound.

The recent marketplace successes of three all-digital direct broadcast satellite services (GM Hughes Electronics' DirecTV, United States Satellite Broadcasting and PrimeStar, which is owned by General Electric Co. and six cable operators) "validates the North American cable industry's move toward digital distribution," says Green.

Research done for cable has led directly to a worldwide adoption of the Moving Picture Experts Group's MPEG-2 standard for digital compression and to the decision, first made in the U.S. and then echoed worldwide, to use compressed digital signals in the new generation of high definition TV (HDTV).

CableLabs played a key on-site role in the testing of competing HDTV systems under U.S. Federal Communications Commission (FCC) auspices in Alexandria, Virginia, which led to the official U.S. embrace of the so-called Grand Alliance HDTV system. The system will be tested both in the laboratory and in the field — Charlotte, North Carolina, to be exact. More recently, the consortium led efforts to create an international patent rights body to license MPEG's core inventions, a way to clarify a haze of confusing MPEG-related patent claims.

Digital deployment

The first compressed digital transmission of cable programming from satellites to cable headends began almost three years ago. This approach increases the number of channels per satellite transponder from one to four or more. So far, these signals have been decompressed and decoded at headends and retransmitted in standard analog, amplitude modulation format over cable systems.

Later this year, however, major MSOs will begin sending out tiers of digital channels, compacting four to 10 standard NTSC channels into the 6 MHz of bandwidth that traditionally carried one channel.

From a traveling van, CableLabs has conducted digital characterization studies in more than 300 homes nationwide to help MSOs re-engineer their systems to carry these signals and to help vendors design equipment suitable for the cable environment. More recently, in December 1994, it began a program of conformance testing aimed at seeing whether different vendors' equipment produces properly formatted and synchronized video, audio and data signals.

In a separate effort, CableLabs Vice President of Engineering Richard Prodan invented a universal demodulator — a device capable of processing NTSC and HDTV signals that have been compressed using several different digital modulation techniques.

Security and upstream signals

Another key focus of interest has been assuring the security of the new digital signals. Claude Baggett, CableLabs' director of customer premises equipment, points out that digital signals can be protected against theft better than analog signals, which are inherently quite easy to steal.

Baggett has been cable's key representative on the Electronic Industries Association/National Cable Television Association Joint Engineering Committee and on a subgroup, the National Renewable Security Standards Committee.

That group is moving, amid rough interindustry jousting, toward adoption of a standard for data protocols and physi-

cal devices to control conditional access by subscribers to digital signals. It is currently favoring a microprocessor card, dubbed ISO 7816 and about the size of a fattened credit card, that would be inserted into set-top boxes and future TV sets and VCRs, providing cable operators with a secure means of billing for services rendered.

"Our consistent position is that everything dealing with security must be in a card or module that is easily accessible, not buried inside a consumer electronics device," says Baggett. He expects slots for the new cards to be incorporated in set-top boxes beginning in 1996.

Another CableLabs R&D effort has focused on configuring systems so digital signals can be transmitted upstream for tasks as simple as ordering pay-per-view movies or as complex as two-way telephony. Extensive testing during 1994, directed by Prodan, revealed where improvements need to be made for successful upstream signaling, which is challenging as long as signals are funneled upstream through a series of cascaded amplifiers.

Some suggestions to cable operators are:

- Amplifiers must be aligned to proper gain levels, and set-top boxes must be power-adjusted so they don't blare overly strong signals upstream;
- As an interim solution, filters can be put on taps outside those homes not using the upstream data channels, sealing out the noise from their drop wires and in-home wiring, which otherwise "act like antennas," Prodan says.

"All this is a pretty tall order," Prodan observes. "From an engineering perspective, it's very easy to do. From the plumbing perspective, that is, the actual connector and amplifier level, it will be a challenge, but is achievable."

Digital cornucopia

Once a delivery system is in place for delivering digital content, huge perspectives open up as to what content the pipeline carries. This is the idea behind what some are calling a full-service network, more generically called a broadband interactive network.

Green speaks of a modular design wherein cable operators must pay the upgrade costs only for the services that individual subscribers will pay for. If they only want analog TV, the existing plant has it. For digital services, "a network interface terminal, either a point-of-entry box serving the whole home or a set-top, can support incremental services on a pay-as-you-go basis," Green says. "Services can be delivered to a TV screen, video game player, home personal computer (PC), telephone, or some other device."

An on-screen guide would describe, and sell, all these services. "The elegant part," Green says, "is that this type of hybrid network preserves the low cost of multicasting, which has been cable's traditional advantage, but can deliver point-to-point services when a customer wants to pay for them."

CableLabs is researching telecommunications. These are services that have a relatively symmetrical two-way flow of data and are delivered by a non-TV device such as a PC or

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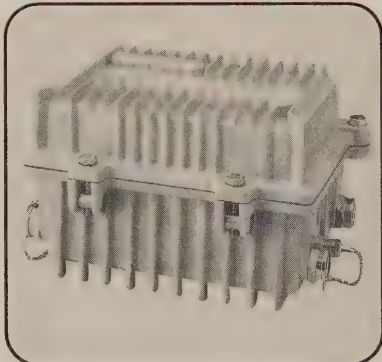
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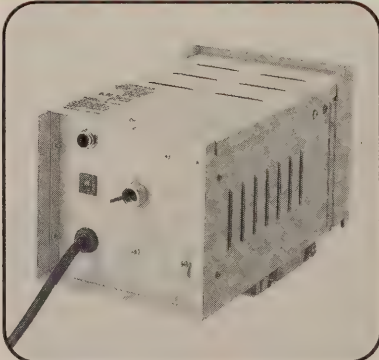
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"Once a delivery system is in place for delivering digital content, huge perspectives open up as to what content the pipeline carries."

telephone. These include high-speed data services like Prodigy, America Online or work-at-home links to corporate computers, wired and wireless telephone service and, at the price end, video teleconferencing.

By contrast, another class of services is delivered to a TV set. Data flow is asymmetrical, with upstream signals largely limited to simple requests for services ranging from a movie or time-shifted TV show to a purchase from a teleshopping catalog. The content (video, text, animation and pictures) is stored on computers with large memories called digital servers.

Telecom RFI and RFP

CableLabs in August 1994 issued a Request for Proposals (RFP) seeking vendor input about plain old telephone service (POTS), high-speed data and videotelephone services. More than 75 companies responded in 43 separate responses, sharing their ideas and product information in hopes of gaining a share of what member companies said might be worth up to US\$2 billion in orders for telecom equipment.

With British cable companies already selling both telephone and television, U.S. cable companies would like a piece of the \$90 billion U.S. local-loop telephone business. By early 1995, it was already legal for cable operators to sell such service in seven states, and pending federal legislation may open the door nationwide.

Meanwhile, cable companies are already in the local phone business as majority owners of the largest competitive access providers, companies like Teleport Communications Group and Time Warner's AxS that sell local voice and data linkups to long-distance carriers in most American cities.

Some major cable operators also have teamed with long-distance carrier Sprint to bid for federal licenses to build personal communications service networks, which use a technology like cellular but with larger numbers of transmitter-receivers serving smaller-sized cells.

"Our vision of telecom markets sees us first providing POTS due to its ubiquity, either as a full-fledged competitor to telcos or as a second-line provider of discounted long distance calling," Green says. To do so, he adds, cable must partner with allies who are strong in the switching and customer-support areas.

Providing high-speed data pipelines to home PCs "is one area where operators can possibly jump in quite quickly," says David Eng, CableLabs manager of technical services. His group and member companies are working with modem vendors, such as Intel Corp., and would-be computer network operators, such as Microsoft Corp., to build a stable delivery platform. In January, CableLabs convened the first meeting of its Cable/IT (information technology) Convergence Forum, which is intended as a forum promoting collaboration in this area by cable and computer companies.

CableLabs also has been deeply involved in efforts of the ATM Forum, an ad hoc industry group attempting to fast-

track the market introduction of equipment using asynchronous transfer mode (ATM) transmission, a technology popular with some MSOs. It also is studying competing approaches based on dynamic bandwidth allocation, which some MSOs view as a cheaper way to move high-speed digital signals in and out of homes.

Media servers

Through a separate request for information issued in May 1994, CableLabs sought and received vendor input about designing the server-based systems that will provide video and other on-demand content to TV screens.

Scott Wattawa, CableLabs' project manager for operations software, says the process revealed that there's no one optimal size for such servers and that managing the huge volume of transactions they'll generate will be a challenge. The good news, he says, "is that you only have to go a couple of years into the future for on-demand services to be a success for a business in just about anyone's book."

A showcase for teamwork

In the past two Decembers when cable operators assembled for the Western Show, their second-largest annual U.S. conclave, CableLabs presented highly ambitious exhibits. Called CableNET '93 and CableNET '94, they were actual working demonstrations of different services sharing an ATM-based high-speed digital network.

The intent was to press home to service providers (from interactive-learning system creators to billing software vendors) the message that cable operators fervently desire that all these applications be able to hum along smoothly together on one network. The buzzword for such digital esprit de corps is interoperability.

The exhibits also showcased cable's digital future to staffers at MSOs (many of whom proclaimed themselves excited about potential new revenue streams) as well as computer executives, regulators and politicians.

Strategy for 1995

In setting its targets for 1995, CableLabs increased its annual budget slightly, to \$13.1 million, authorized staff expansions, from 50 to 61 people, and set two uppermost tasks for 1995: assisting members' efforts to bring telecom businesses onstream and supporting the deployment of compressed digital TV transmission.

An ongoing emphasis went to assembling the information that the group learns, both from its own research and from others' efforts, and getting the cash-value findings out to decision-makers at member companies. This is done through publications and at periodic briefings on focused and timely topics.

In support of its desire to foster interoperability among networks and service providers worldwide, CableLabs has taken part in dramatic early-1995 meetings conducted by the International Telecommunications Union (ITU), International Standards Organization and other bodies aimed at agreement on a variety of digital standards.

These bodies' deliberations, Green notes, "are drawing heavily on digital transport solutions first developed by the North American cable industry. The industry should be proud of its major contribution to the global infrastructure that's taking shape."

The first global standard for digital cable transmission, scheduled for formal adoption in June, bears the imprint of technologies pioneered by the U.S. cable industry.

The work is proceeding within Study Group 9 of the Telecommunications Sector of the Geneva-based ITU. Green is that group's vice chairman and chairs a subgroup, Working Party 1/9, focusing on video aspects of the issue. Last fall, Study Group 9 sought proposals from telecom planners worldwide.

European, Japanese and U.S. study groups responded. The U.S. input, adopted in meetings at the State Department in mid-January, included provisions for two different technologies. One approach, based on quadrature amplitude modulation, is the technique of choice among U.S. cable operators. A second approach, vestigial sideband, is a modulation method tested as part of the evaluation undertaken by the Advisory Committee on Advanced Television.

A draft recommendation, which Green's subgroup hammered out in Geneva in early February, incorporates both approaches, while calling for future efforts toward convergence between them. If approved by the full Study Group 9 in early June and adopted by governments worldwide, the standard, officially known as J.83, will become a world standard. **IC**

This article was prepared specially for International Cable by Robert Wells on behalf of Cable Television Laboratories Inc., the North American cable industry research consortium, located in Louisville, Colorado, U.S.A.

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World Guide to U.S. Programmers



April 1995



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(Signature and date required by U.S. Postal Service)

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|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 27 | 53 | 79 | 105 | 131 | 157 | 183 | 209 | 235 | 261 | 287 |
| 2 | 28 | 54 | 80 | 106 | 132 | 158 | 184 | 210 | 236 | 262 | 288 |
| 3 | 29 | 55 | 81 | 107 | 133 | 159 | 185 | 211 | 237 | 263 | 289 |
| 4 | 30 | 56 | 82 | 108 | 134 | 160 | 186 | 212 | 238 | 264 | 290 |
| 5 | 31 | 57 | 83 | 109 | 135 | 161 | 187 | 213 | 239 | 265 | 291 |
| 6 | 32 | 58 | 84 | 110 | 136 | 162 | 188 | 214 | 240 | 266 | 292 |
| 7 | 33 | 59 | 85 | 111 | 137 | 163 | 189 | 215 | 241 | 267 | 293 |
| 8 | 34 | 60 | 86 | 112 | 138 | 164 | 190 | 216 | 242 | 268 | 294 |
| 9 | 35 | 61 | 87 | 113 | 139 | 165 | 191 | 217 | 243 | 269 | 295 |
| 10 | 36 | 62 | 88 | 114 | 140 | 166 | 192 | 218 | 244 | 270 | 296 |
| 11 | 37 | 63 | 89 | 115 | 141 | 167 | 193 | 219 | 245 | 271 | 297 |
| 12 | 38 | 64 | 90 | 116 | 142 | 168 | 194 | 220 | 246 | 272 | 298 |
| 13 | 39 | 65 | 91 | 117 | 143 | 169 | 195 | 221 | 247 | 273 | 299 |
| 14 | 40 | 66 | 92 | 118 | 144 | 170 | 196 | 222 | 248 | 274 | 300 |
| 15 | 41 | 67 | 93 | 119 | 145 | 171 | 197 | 223 | 249 | 275 | 301 |
| 16 | 42 | 68 | 94 | 120 | 146 | 172 | 198 | 224 | 250 | 276 | 302 |
| 17 | 43 | 69 | 95 | 121 | 147 | 173 | 199 | 225 | 251 | 277 | 303 |
| 18 | 44 | 70 | 96 | 122 | 148 | 174 | 200 | 226 | 252 | 278 | 304 |
| 19 | 45 | 71 | 97 | 123 | 149 | 175 | 201 | 227 | 253 | 279 | 305 |
| 20 | 46 | 72 | 98 | 124 | 150 | 176 | 202 | 228 | 254 | 280 | 306 |
| 21 | 47 | 73 | 99 | 125 | 151 | 177 | 203 | 229 | 255 | 281 | 307 |
| 22 | 48 | 74 | 100 | 126 | 152 | 178 | 204 | 230 | 256 | 282 | 308 |
| 23 | 49 | 75 | 101 | 127 | 153 | 179 | 205 | 231 | 257 | 283 | 309 |
| 24 | 50 | 76 | 102 | 128 | 154 | 180 | 206 | 232 | 258 | 284 | 310 |
| 25 | 51 | 77 | 103 | 129 | 155 | 181 | 207 | 233 | 259 | 285 | 311 |
| 26 | 52 | 78 | 104 | 130 | 156 | 182 | 208 | 234 | 260 | 286 | 312 |

A. Are you a member of the SCTE (Society of Cable Television Engineers)?

01. ☐ yes
02. ☐ no

B. Please check the category that best describes your firm's primary business (check only 1):

- Cable TV Systems Operations**
03. ☐ Independent Cable TV Syst.
04. ☐ MSO (two or more Cable TV Systems)
05. ☐ Cable TV Contractor
06. ☐ Cable TV Program Network
07. ☐ SMATV or DBS Operator
08. ☐ MDS, STV or LPTV Operator
09. ☐ Microwave or Telephone Comp.
10. ☐ Commercial TV Broadcaster
11. ☐ Cable TV Component Manufacturer
12. ☐ Cable TV Investor
13. ☐ Financial Institution, Broker, Consultant
14. ☐ Law Firm or Govt. Agency
15. ☐ Program Producer or Distributor
16. ☐ Advertising Agency
17. ☐ Educational TV Station, School, or Library
18. ☐ Other (please specify) _____

C. Please check the category that best describes your job title:

19. ☐ Corporate Management
20. ☐ Management
21. ☐ Programming
Technical/Engineering
22. ☐ Vice President
23. ☐ Director
24. ☐ Manager
25. ☐ Engineer
26. ☐ Technician
27. ☐ Installer
28. ☐ Sales/Marketing
29. ☐ Other (please specify) _____

D. In the next 12 months, what cable equipment do you plan to buy?

30. ☐ Amplifiers
31. ☐ Antennas

32. ☐ CATV Passive Equipment including Coaxial Cable
33. ☐ Cable Tools
34. ☐ CAD Software, Mapping
35. ☐ Commercial Insertion/Character Generator
36. ☐ Compression/Digital Equip.
37. ☐ Computer Equipment
38. ☐ Connectors/Splitters
39. ☐ Fleet Management
40. ☐ Headend Equipment
41. ☐ Interactive Software
42. ☐ Lightning Protection
43. ☐ Vaults/Pedestals
44. ☐ MMDS Transmission Equipment
45. ☐ Microwave Equipment
46. ☐ Receivers and Modulators
47. ☐ Safety Equipment
48. ☐ Satellite Equipment
49. ☐ Subscriber/Addressable Security Equipment/Converters/Remotes
50. ☐ Telephone/PCS Equipment
51. ☐ Power Suppls. (Batteries, etc.)
52. ☐ Video Servers

E. What is your annual cable equipment expenditure?

53. ☐ up to \$50,000
54. ☐ \$50,001 to \$100,000
55. ☐ \$100,001 to \$250,000
56. ☐ over \$250,000

F. In the next 12 months, what fiber-optic equipment do you plan to buy?

57. ☐ Fiber-Optic Amplifiers
58. ☐ Fiber-Optic Connectors
59. ☐ Fiber-Optic Couplers/Splitters
60. ☐ Fiber-Optic Splicers
61. ☐ Fiber-Optic Transmitter/Receiver
62. ☐ Fiber-Optic Patchcords/Pigtails
63. ☐ Fiber-Optic Components
64. ☐ Fiber-Optic Cable
65. ☐ Fiber-Optic Closures & Cabinets

G. What is your annual fiber-optic equipment expenditure?

66. ☐ up to \$50,000
67. ☐ \$50,001 to \$100,000
68. ☐ \$100,001 to \$250,000
69. ☐ over \$250,000

H. In the next 12 months, what cable test & measurement equipment do you plan to buy?

70. ☐ Audio Test Equipment
71. ☐ Cable Fault Locators
72. ☐ Fiber Optics Test Equipment
73. ☐ Leakage Detection
74. ☐ OTDRs
75. ☐ Power Meters
76. ☐ Signal Level Meters
77. ☐ Spectrum Analyzers
78. ☐ Status Monitoring
79. ☐ System Bench Sweep
80. ☐ TDRs
81. ☐ Video Test Equipment

I. What is your annual cable test & measurement equipment expenditure?

82. ☐ up to \$50,000
83. ☐ \$50,001 to \$100,000
84. ☐ \$100,001 to \$250,000
85. ☐ over \$250,000

J. In the next 12 months, what cable services do you plan to buy?

86. ☐ Consulting/Brokerage Services
87. ☐ Contracting Services (Construction/Installation)
88. ☐ Repair Services
89. ☐ Technical Services/ Eng. Design
90. ☐ Training Services

K. What is your annual cable services expenditure?

91. ☐ up to \$50,000
92. ☐ \$50,001 to \$100,000
93. ☐ \$100,001 to \$250,000
94. ☐ over \$250,000

L. Do you plan to rebuild/upgrade your system in the next 12 months?

95. ☐ 1 year
96. ☐ more than 2 years

M. How many miles of plant are you upgrading/rebuilding?

97. ☐ up to 10 miles
98. ☐ 11-30 miles
99. ☐ 31 miles or more

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— Doug Morris, Chairman & CEO, Warner Music U.S.

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— Mike Andrews, Marketing Director, Chrysalis Records/EMI Group, U.K.

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| VH-1 | — | .9 |

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In the case of U.S.-originated cable programming, that's what's happening. With domestic channel capacity maxed out for the near future, and cable for the first time facing real competition from the phone companies and direct-to-home satellites, the networks are going abroad.

It's an age-old thing. For the last 500 years, millions of immigrants have been coming to America to make a new life for themselves. Some fled ethnic or religious persecution, others were fleeing poverty; now the Yanks are doing the same, only it's the lure of the deutsche mark, drachma and yen that beckons, and the persecution they flee isn't religious, it's regulatory.

Some, like CNN, went international over a decade ago and are globally established trademarks. Others have only just booked passage. They're setting up shop in every corner of the wired, or just as often, wireless world. They're making local agreements, taking local partners and speaking the local dialect. If they're not yet making money, most expect to do so within the next five years.

It's a cable-ready world.


No matter how much a problem technically or diplomatically, U.S.-based program services will eventually reach anywhere there's an audience. They'll join local services in competing for local eyeballs, and for better or worse, they'll do very well. The entrepreneurship and pure technological know-how of the U.S. cable, wireless and satellite industries will skip any border and reach any people ready for a change.

And just think of what changes will occur in a society when one day a consumer gets two government approved channels and the next day can choose from a selection of 25 or more Western and near-region channels, all with different content and languages. Think of all that time, trial and error saved through such a quantum leap. Imagine if you will the U.S. television experience, only skip everything that happened between 1955 and 1985! It's no wonder the most crucial and immediate problem facing U.S. networks is

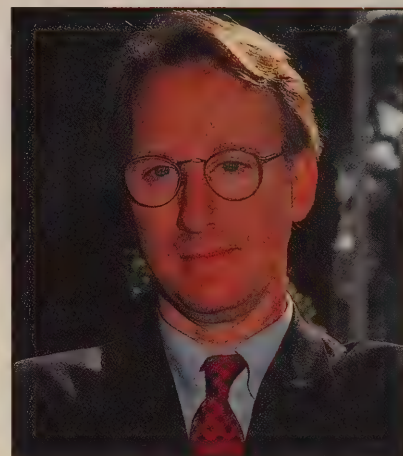
the availability (and rising costs) of reliable satellite carriage.

It's not just the programmers who are heading overseas. Today, U.S.-based MSOs and holding companies like TCI, UIH, Time Warner, Falcon, Continental, Cox, Comcast and Jones are the landlords of many of the world's local cable, wireless or satellite operations. As TCI's Adam Singer says, "Any company that may naively be thinking that they should turn their attention to international is too late." Already, substantial revenue is flowing to these and affiliated companies, especially in markets where both cable and telephony are provided. Here's Comcast International's Robert Clasen: "Like most U.K. operators, we're looking at cable penetration in the mid-20% range, but we're also doing similar numbers with telephony. You can walk down any street in one of our franchise areas and over 40% of the homes are buying a product from us."

In this supplement, we list the names, addresses and sales contacts for over 30 U.S.-based program networks whose programming is available overseas. It's our hope that operators who pick up this copy of *International Cable* will use its information, pick up the phone and make their subscribers happy.



Alex Swan
Editor



International Cable wishes to thank everyone who provided us with information for this guide. The facts contained are accurate and up-to-date to the best of our knowledge.

Thanks to Katherine Stroud for editorial collaboration.

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New York, NY 10017 USA
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fax: (212) 983-4370

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•Nickolas Davatzes, Pres. & CEO; Seymour H. Lesser, EVP, CFO & Admin. Off.; Whitney Goit II, EVP, Sales & Mktg.; Daniel E. Davids, SVP, Gen. Mgr., The History Channel; Brooke Bailey Johnson, SVP Prog. & Production; Mimi Meyer Falcone, PR, A&E; LeDebra Moore, PR, History Channel.

•A&E features original biographies, performing arts, mysteries and specials. **The History Channel** features original and exclusive documentaries, movies and miniseries.

•Satellite: A&E, Galaxy V, tr. 23; The History Channel, Satcom C-3, tr. 12; A&E in Canada: Galaxy V, tr.23.

BET INTERNATIONAL

1232 31st Street
Washington, DC 20007 USA
ph: (703) 875-0430
fax: (703) 525-6992

Area served: USA, South Africa, Europe, Caribbean

•Curtis Symonds, Pres.; George Amoah, VP; Olufunke Adebbono, Account Mgr., African Region; Sonia Polanco, Account Mgr., Caribbean Region.

•BET is the U.S.' first and only black cable television network. It was founded in 1980 by Robert Johnson. It provides a national platform to showcase the creativity of the black entertainment industry. Presents news, talk shows, children's and educational programs, concerts, music videos, family sitcoms, public affairs, sports and entertainment.

•Satellite: Galaxy V, tr. 20 (USA), International: tape delivery/satellite option

BRAVO

Rainbow Programming Holdings Inc.

150 Crossways Park West
Woodbury, NY 11797 USA
ph: (516) 364-2222
fax: (516) 364-7638

Area served: USA, Canada

•James Dolan, CEO, Rainbow Programming Inc.; Joshua Sapan, COO, Rainbow Programming Inc.; Kathleen Dore, EVP & Gen. Mgr.; Joe Cantwell, SVP, Affiliate Rel. & Sales; Peter Bartley, Dir., Intl. Bus. Dev.

•Canada: Bravo! The New Style Arts Channel
Victoria Wisdom, Ad Sales Dir.
ph: (416) 591-7400 x.2731

•Bravo is a film and arts network featuring American independent and international films without commercial interruption as well as performing arts specials, interview programs, musical and cultural specials and TV series.

•Satellite: Satcom C4, tr. 7

CMT: COUNTRY MUSIC TELEVISION

2806 Opryland Drive
Nashville, TN 37214 USA
ph: (615) 871-5830
fax: (615) 871-5835

Area served: USA, Europe, Asia

•Parent company: Gaylord Entertainment Company and Group W Satellite Communications

Networks:

CMT: (launch date 3/6/83); **CMT Europe** (launch date 10/19/92); **CMT Pacific** (launch date 10/4/94)

•Tom Griscom, Chairman of the Board, CMT, President Gaylord Communications, David Hall, President, CMT, SVP, Cable Networks, Opryland USA; Don Mitzner, VP/CMT, President, GWSC; Lloyd Werner, VP, CMT, EVP, Sales and Marketing, GWSC; Tom Hawley, VP International Distribution & Special Markets, CMT; Cheryl Daly, VP, Public Relations, GWSC



•Sales contacts:
Tom Hawley
Marcia Robbins
Group W Satellite Communications
250 Harbor Drive
Stamford, CT 06904 USA
ph: (203) 965-6424
fax: (203) 965-6398

•CMT: Country Music Television and its international networks are all-video, all-country music networks featuring hits from both American and international country music artists. It launched in 1983 and, since that time, has concentrated on promoting the "young country" format that helped breakthrough country artists like Billy Ray Cyrus and Travis Tritt achieve their success.

•Satellite: Satcom C-4, tr. 24 (USA); Astra 1B, tr. 24 and Intelsat 27.5 W, (CMT Europe); PanAmSat PAS-2, tr. 1C (CMT Pacific)

CNBC

2200 Fletcher Avenue
Fort Lee, NJ 07024 USA
ph: (201) 585-2622
fax: (201) 585-6244

Area served: USA, Europe, Asia

•Robert Ailes, Pres.; Mark Hotz, VP, Mktg.; Paul Rittenberg, VP, Ad Sales, Steve Carter, VP, Intl. Sales, (212) 664-6046

•NBC Super Channel, London
ph: 4471-418-1746
fax: 4471-418-9420
European licensing: Rebecca Johnson

•CNBC - Hong Kong
ph: 852-252-723-39
fax: 852-286-52231
Asian Licensing: Robert Wilson

•CNBC offers live business and financial news geared to consumers during the day, and interview, talk, and call-in programs during prime time.

•Satellite: Galaxy V, tr. 13 (USA); Eutelsat II F-6, tr. 10 (Europe); PanAmSat 2, tr. 13-C (Asia)

THE BOX

1221 Collins Avenue
Miami Beach, FL 33139 USA

ph: (305) 674-5000

fax: (305) 674-4900

Imperial House
11-13 Young Street
Kensington, London
W85EH England
ph: 44-71-376-2000
fax: 44-71-376-1313

- **Area served:**

USA, United Kingdom, Puerto Rico

- **Executives:**

Alan McGlade, President & CEO;
Les Garland, Executive VP;
John Robson, VP, Programming,
International; Gino Natalicchio, VP,
International Development;
Vincent Monsey, Managing Director,
THE BOX UK; Liz Laskowski,
Director Administration &
Programming, THE BOX UK;
Jerry Berkowitz, Director, Marketing

- **Sales Contacts:**

Andy Terentjev
VP, Affiliate Sales & Marketing
ph: (305) 674-5000

Donna Lightner
Manager, Affiliate Relations
ph: (610) 989-0110

Scott Bonn
VP, Advertising Sales
ph: (212) 880-6460

• Satellite: Satcom C4, tr. 11



Unwrapping THE BOX's new headquarters in South Beach, Miami are (left to right) Les Garland, Executive Vice President, THE BOX; Alan McGlade, President & CEO, THE BOX; City Commissioner Bruce Kaplan; and Miami Beach Mayor Sy Gelber.

- **Programming:**

THE BOX was launched in 1990 in Miami. At its heart are video jukeboxes installed at cable headends and low-power TV stations around the country that spin out several hundred cutting edge music videos a day. The program directors are the viewers at home who select what airs by ordering up a video by phone that costs between \$1-3. It is the only all viewer-programmed interactive music television channel. Its playlist is street-wise and cutting-edge and its most requested tunes are alternative rock, rap, hip-hop and heavy metal. THE BOX's President and CEO is Alan McGlade. He is joined at THE BOX by Les Garland, one of the men credited with founding MTV. Further pedigree is offered in the person of minority investor and Island Records Chairman, Chris Blackwell.



COURT TV



**600 Third Avenue
New York, NY 10021 USA
ph: (212) 973-2800
fax: (212) 692-7878**

Area served: Continental USA,
Puerto Rico, Virgin Islands, Europe
(via syndication)

Ownership: Time Warner, Inc., Tele-
Communications, Inc., Cablevision
Systems Corp., NBC. Managed by
American Lawyer Media, L.P.

•Steven Brill, CEO & Editor-in-Chief;
Steve Johnson, SVP & Executive
Producer; Mike Archer, Executive
Editor; Bob Rose, SVP, Affiliate
Sales; Jeff Ballabon, VP, Government
& Public Affairs; Fred Graham, Chief
Anchor, Managing Editor; Lynn
Rosenstrach, Media Contact

Sales Contact: Robert Golden (212)
973-3340

•Court TV is the only cable network
dedicated to live and taped coverage
of courtroom trials from around the
U.S. It airs 24 hours a day and pro-
vides live and taped coverage of the
nation's most important and com-
pelling trials. It launched on July 1,
1991, and, since then, has covered
more than 350 trials and hearings.
Trial coverage is anchored by legal
journalists with commentary from
prominent attorneys. In addition to
gavel-to-gavel trial coverage and reg-
ular updates of legal news from
around the country, Court TV offers a
variety of programs that help viewers
better understand all aspects of the
judicial system. Today, 47 states in
the U.S. allow some form of television
coverage of courtroom proceedings.
Court TV is dedicated to making trial
coverage educational as well as
entertaining.

•Satellite: Satcom C-3, tr. 6, DirecTV

Reader Service Number 158

The network features recently released
movies, off-network series, specials
and children's programming.

•Satellite: PanAmSat 1 (Columbia to
Argentina); Solidaridad 1 (Mexico to
Panama)

HOME BOX OFFICE

**1100 Avenue of the Americas
New York, NY 10036 USA
ph: (212) 512-1000
fax: (212) 512-5517**

Area served: USA, Eastern Europe,
Latin America, Asia

•HBO Hungary/Spektrum: Steve Smith
ph: 36-1-165-2466

fax: 36-1-181-2377

•HBO Czech: Jim Hurlock

ph: 42-2-425-169

fax: 42-2-472-2749

•HBO Ole/Cinemax: Jose Pagani

ph: 582-241-8866

fax: 582-242-6067

•HBO Brasil: Antonio Baretto

ph: 55-11-872-3738

fax: 55-11-872-2284

•HBO Asia: William Hooks

ph: 65-288-6303

fax: 65-287-2210

•HBO airs movies, sports and concerts;
Spektrum airs documentaries.

•Satellite: Galaxy I and V, Telstar 302
(USA), PanAmSat (HBO Ole), Palapa
B2P, Apstar 1 (HBO Asia)

INSP - THE INSPIRATIONAL NETWORK

**9700 Southern Pine Boulevard
Charlotte, NC 28273 USA
ph: (704) 525-9800
fax: (704) 525-9899**

Area served: USA, Latin America, Asia,
Pacific Rim

•David Cerullo, Pres. & CEO; Mitch
Martin, VP, Finance and CFO; Larry
Sims, VP, New Bus. Dev.; Tom
Hohman, VP, Affil. Rel.; Judd Jackson,
VP, Ad Sales; John Roos, VP, Mrktg.;
Ossie Mills, VP, Prog.; Dan McKenrick,
VP, Oper.; Jim Dickson, Natl. Accounts
Mgr.; Scott Kennedy, Dir., Natl. Ad
Sales; Melba Spencer, PR Mgr.

•Provides a wide variety of cross-
denominational inspirational programs
including children's programs, music
videos, prime-time specials, movies,
talk and variety shows, concerts and
popular ministry programs.

•Satellite: Galaxy 1R, tr. 17

THE DISNEY CHANNEL

**3800 West Alameda Avenue
Burbank, CA 91505 USA
ph: (818) 569-7500
fax: (818) 558-1241**

Area served: USA, U.K.

•Mark A. Handler, SVP, Sales and Affil.
Mktg.; Winifred B. Wechsler, SVP, New
Bus. Dev.

•Premium television service featuring
original series and specials and exclu-
sive Disney theatrical films for family
viewing. Disney Night Time offers adults
exclusive concerts, classic and contem-
porary movies and a variety of specials.

•Satellite: Galaxy V, tr. 1 (East Coast);
Galaxy 1-R, tr. 7 (West Coast)

E! ENTERTAINMENT TELEVISION

**5670 Wilshire Boulevard.
Los Angeles, CA 90036 USA
ph: (213) 954-2400
fax: (213) 954-2662**

Area served: USA, Asia, Europe, Africa

•Lee Masters, Pres. & CEO; Christopher
B. Fager, SVP, Bus. & Legal Affairs; Jon

Helmrich, VP, Intl. Dev.; Cathie Trotta,
Dir., Intl. Dev.; David T. Cassaro, SVP,
Ad Sales; Dale Hopkins, SVP, Mrktg.;
William S. Keenan, SVP, CFO

•E! Offers celebrity interviews, talk shows,
news, classic shows, documentaries,
behind-the-scenes coverage, comedy
shows, movie previews and coverage of
entertainment industry award shows.

Can be seen in 120 territories worldwide.

•Satellite: Satcom C-3, tr. 23 (USA),
International: part of STAR-TV, BSkyB
and FILMNET packages.

FOX LATIN AMERICA (CANAL FOX)

**11833 Mississippi Avenue
Second Floor
Los Angeles, CA 90025 USA
ph: (310) 447-7352
fax: (310) 447-7316**

Area served: Mexico, Central America,
South America, the Caribbean

•Concepcion Lara, SVP & Gen. Mgr.;
Kim Hatamiya, VP; Ashley Marable, VP
Ad Sales & Prom.; Carolina Lightcap,
Dir. Mrktg., Pub. & Prom.

•General entertainment network
designed for Latin American audiences.

THE DISCOVERY CHANNEL

7700 Wisconsin Avenue
Bethesda, MD 20814 USA
ph: (301) 986-1999
fax: (301) 986-4826

• Area served:

USA, Latin America, Asia, Europe

• Executives:

John Hendricks, Founder,
Chairman/CEO;
Gregory Moyer, President/COO;
Domenick Fioravanti, SVP,
International

• The Discovery Channel Latin America

One Alhambra Plaza
Suite 600
Coral Gables, FL 33134 USA
ph: (305) 461-4710
fax: (305) 461-1402
Launch date: February 1994

Dawn L. McCall, VP & General
Manager;
Henry Martinez, Director, Affiliate
Sales;
Asuncion Marin, Marketing Director;
Rick Rodriguez, Programming
Director

Sales contact:
Cathy Pratt, Director, Ad Sales
ph: (212) 751-2220
fax: (212) 843-4102



• Programming:

The Discovery Channel reaches more than 75 million subscribers in over 65 countries around the globe. The network presents high-quality, non fiction programming in the areas of science and technology, nature, history, human adventure and world cultures. Attracting some of the world's best documentary filmmakers, The Discovery Channel brand has become synonymous with the finest in real-world entertainment. DCI, a privately held media company headquartered in Bethesda, Maryland, comprises four shareholders — Tele-Communications, Inc., Cox Cable Communications, Newhouse Broadcasting Corp. and John S. Hendricks. In addition to its core network business, which also includes The Learning Channel, DCI operates businesses in CD-ROM, home video, publishing and program sales.

Language:
Fully dubbed Spanish service with
45% of programming subtitled in
Portuguese for Brazil and Portugal

Satellite:
PanAmSat 1 (Latin America)
Morelos II (Mexico)
Intelsat 332.5 (Spain, Portugal)

• The Discovery Channel Asia

3/F, Baskerville House
13 Duddell Street
Central Hong Kong
ph: (852) 2822-7188
fax: (852) 2810-8456
Launch date: January 1994

Kevin John McIntyre, VP and
General Manager;
Susan Ho, Marketing Director;
Elisabeth Sami, Affiliate Sales
Director

Language:
Subtitled in Mandarin in Taiwan,
dubbed in Thai for Thailand,
received in English for all other
markets

Satellite:
Palapa B2P & Apstar I (Southeast
Asia)
PanAmSat II (Australia/New
Zealand)
ArabSat 1D (Middle East/ Northern
Africa)

• The Discovery Channel Europe

Twyman House
16 Bonny Street
London, NW1 9PG
United Kingdom
ph: 44-71-813-5000 ext. 5005
Fax: 44-71-284-2042
Launch date: April 1989

Joyce Taylor, CEO United Artists
Programming; Nick Comer-Calder,
VP Programming

Language:
All countries: English
Denmark: Danish subtitles
Finland: Finnish subtitles
Netherlands: Dutch subtitles
Norway: Norwegian subtitles
Sweden: Swedish subtitles

Satellite: Astra 1C, tr. 41H, Thor

ESPN INTERNATIONAL

ESPN Plaza
Bristol, CT 06010 USA
(International Network & Operations)
ph: (203) 585-2000
fax: (203) 585-2213

605 Third Avenue, 8th floor
New York, NY 10158
(Corporate Offices)
ph: (212) 916-9200
fax: (212) 916-9312

- **Area served:**

120 countries. 24-hour satellite network feed to Latin America, Asia and Pacific Rim, Middle East/Northern Africa, sub-Saharan Africa. Individual programs and series to over 200 broadcast satellite and cable outlets worldwide.



- **Executives:**

Andrew Brilliant, EVP & General Manager; David Zucker, SVP; Mark Reilly, VP, International Sales; Richard Stone, VP, International Sales; Rosa Gatti, SVP Public Relations.

Programming:

ESPN International and its affiliated networks and country/region specific feeds provide sports fans live and taped coverage of every sport imaginable. Among the sports covered are soccer, basketball, tennis, cricket, auto racing, golf, table tennis, boxing, badminton, volleyball, ice hockey, and track and field. In addition, ESPN, via its international networks, televises the four crown jewels of U.S. sports: the National Football League's Super Bowl, Major League Baseball's World Series, the National Basketball Association's Finals and the National Hockey Association's Stanley Cup.

- **ESPN INTERNATIONAL - Asia**

The Asian feed became a stand-alone in January 1994. It programs 24 hours a day via several different feeds in English, Mandarin and Japanese. Satellite: JC Sat, Palapa B2P, Apstar 1, PanAMSat 2. Harold Anderson, VP Programming & Production, ESPN Asia Ltd.; Alexander Brown, VP/Managing Director; John Davies, GM, Programming & Production. (Production Center is in Singapore, which will add 6 new language feeds to Taiwan, India, Hong Kong, China and Southeast Asia)

Hong Kong Sales Offices
Suite 3003, Citycorp Centre
18 Whitfield Road
Causeway Bay, Hong Kong
ph: 852-887-1199
fax: 852-887-0813

- **ESPN INTERNATIONAL - Latin America**

Programming is simultaneously transmitted in English, Spanish and Portuguese. Satellite: PanAmSat 1 (Latin America), Morelos 1 (Mexico), Brazilsat (Brazil)

- **Eurosport**

Programs to 35 countries throughout Europe, simultaneously translated in Dutch, English, French, Finnish, German and Swedish. Satellite: Astra

- **Supersport - ESPN**

M-Net International transmits ESPN International to 19 countries in Africa in English. Satellite: PanAmSat 4

- **Orbit - ESPN Sports Channel**

Orbit uplinks ESPN International from broadcast center in Rome to more than 23 countries in the Middle East and Northern Africa. Satellite: Arabsat

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CONTACT:
ESPN INTERNATIONAL, 605 Third Avenue
New York, NY 10158, USA
TEL 212-916-9200, FAX 212-916-9325

ESPN ASIA, LTD., Suite 3003, Citicorp Centre
18 Whitfield Rd, Causeway Bay, Hong Kong
TEL 852-2887-1199, FAX 852-2887-0813

GEMS TELEVISION

10360 USA Today Way
Miramar, FL 33025 USA
ph: (305) 430-7800
fax: (305) 430-8400

- **Area served:**

USA, Central/South America

- **Executives:**

W. Gary McBride, President & CEO;
Ramon Pineda, Director, Ad Sales;
Eduardo Ruiz, Director, International
Affiliate Sales; Tom Morrison,
Director, Affiliate Sales (USA); Mari
Carmen Villanueva, Director
Programming & Promotions; Pepe
Echegaray, Director Marketing &
Communications; Ana Tisdale,
Manager, International Marketing.

- **Sales Offices:**

Mexico Sales Office:
Edificio Forum
Andres Bello #10, Piso 7
Colonia Chapultepec Polanco
Mexico, D.F. 11560
ph: 525-282-9070
fax: 525-282-9086
Maria Gomez, Sales Manager

Argentina Sales Office:
602 Avenida Libertador
5to Piso
Buenos Aires, Argentina
ph: 541-814-0643 int. 244
fax: 541-814-1846
Maria Fernanda Subi, Sales
Manager

Satellite: Spacenet, Ch. 2 (North
Amer./ Caribbean); Intelsat VI F4
(332.5), Ch. 22 (Central/South
Amer.); Morelos II, Ch. 7 (Mexico)

- **Programming:**

GEMS features a wide range of entertainment and information programming of particular relevance to Hispanic females. Novelas, musicals, movies, comedies, talk shows, fashion, cooking, entertainment news, miniseries, documentaries, concerts and informational segments. GEMS also features its original programs "GEMS Internacional," a showcase of important women across the hemisphere; "Sin Fronteras con Maria Laria," the most ambitious talk show on television, filmed in Spain and seen in 18 countries, hosted by Spanish television superstar Maria Laria; and "Charytin: Siquiatra de Mujeres," a comedy with number one Hispanic comedienne Charytin.



INTERNATIONAL CHANNEL

12401 West Olympic Boulevard
Los Angeles, CA 90064 USA
ph: (310) 478-1818
fax: (310) 479-8118

Encore Media Corp.
5445 DTC Parkway,
Suite 600
Englewood, CO 80111 USA
ph: (303) 771-7700
fax: (303) 741-3067

Area served: USA, Hong Kong,
Taiwan, Singapore, South & Central
America

- Kent Rice, Pres.; Rosemary Danon, EVP, Gen. Mgr. (CA); Que Spaulding, SVP, Mrktg. & Sales (CO); Brad Parobek, Sales Dir. (CO); Aaron Lee, Prog. Dir., Asia (ph: 852-2849-4064)
- News, film, sports, dramas and comedies in 22 foreign languages. Audio available in selected languages.
- Satellite: Satcom C1, tr. 9

INTL. FAMILY ENTERTAINMENT, INC.

P.O. Box 2050
2877 Guardian Lane
Virginia Beach, VA 23450 USA
ph: (804) 459-6000
fax: (804) 459-6425

- The Family Channel (USA)**
- Timothy Robertson, CEO; Rick Busciglio, VP, Intl. Bus. Dev.; Craig Sherwood, SVP, Affil. Rel.
- Variety of entertainment designed for the whole family.
- Satellite: Satcom C3, tr. 1 (west), Galaxy V, tr.11 (east)

- Cable Health Club (USA,**
Venezuela)
- Rick Quintana, Dir. Intl. Bus.
Dev./Latin America
- In-home health & fitness.
- Satellite: Satcom C-4, tr. 14

- Family Channel-UK**
- Alan Bryson, Sales Dir.
ph: 44-1-622-69-1111
fax: 44-1-622-68-4456
- Blend of British, Australian and U.S. family programming.
- Satellite: Astra 1C, tr. 35

JONES EDUCATION NETWORKS

9697 East Mineral Avenue
P.O. Box 3309
Englewood, CO 80155 USA
ph: (303) 792-3111
fax: (303) 792-5608

Area served: USA, Europe (ME/U),
Caribbean, Central America

- Glenn Jones, Chairman; John Sadler, VP Affil. Sales

- Mind Extension University**
- Distance education, incl. professional development, skills based and college credit programming.
- Satellite: Galaxy V, tr. 21

- Jones Computer Network**
- Delivers programming for computer users of all ages.
- Satellite: Satcom C-3, tr. 20

- Jones Health Network**
- Information, entertainment and educational resources for all ages.
- Satellite: Galaxy V, tr. 21

MTV NETWORKS

1515 Broadway, 25th floor
New York, NY 10036 USA
ph: (212) 258-8000
fax: (212) 258-6603

Area Served: USA, Europe, South
America, Japan, Asia (MTV); U.K.
(VH-1 & Nickelodeon)

- MTV Networks Europe**, London
ph: 44-71-284-7777
fax: 44 71 284 7788
William Roedy, Pres., International,
Peter Einstein, Pres., Business Director
- MTV Brazil**, Sao Paulo
ph: 55-11-820-5166
fax: 5- 11-828-9200
- MTV Japan**, Tokyo
ph: 81-3-5448-1103
fax: 81-3-5448-9131
- MTV Latino**, Miami
ph: (305) 535-3745
fax: (303) 672-5204
- MTV Asia/MTV Mandarin**
ph: 65-221-8166
MTV = music videos on TV sets in
over 100 countries. Children's net-
work Nickelodeon and the more tradi-
tional music channel VH 1 are also
getting started internationally.

MOR MUSIC TV

11500 9th Street North, Suite 120
St Petersburg, FL 33716 USA
ph: (813) 579-4600
fax: (813) 579-4667

Area served: USA, Canada, Caribbean,
Central America, Brazil

- Ron Harris, Pres. & CEO; Greg Pai, EVP & CFO; Bill Berman, EVP, Sales & Mrktg.; Max Schmid, EVP, Intl. Rel.
- Music video service targeted to ages 25-54, airing music video hits from the 1950s through the 1990s. Videos rotate among adult contemporary, classic rock, country, jazz, legends and oldies. Viewers may purchase CDs, cassettes, music-related merchandise and collectibles via an 800 number or direct mail.
- Satellite: Galaxy 5, tr. 10

PLAYBOY TV

9242 Beverly Boulevard
Beverly Hills, CA 90210 USA
ph: (310) 246-4000
fax: (310) 246-4050

Area served: Currently available in over
100 territories worldwide

- Anthony Lynn, Pres.; James English, Pres., Playboy Worldwide;
Mary Herne, SVP Int'l. Dist.
- Entertainment targeted to men and couples. World Premiere Playboy Movies and a variety of exclusive feature films for mature audiences.
- Satellite: Galaxy V, tr. 2

PREVUE NETWORKS

7140 South Lewis
Tulsa, OK 74136 USA
ph: (918) 488-4450
fax: (918) 488-4638

Area served: USA, Canada, Central
America

- Joe Batson, Pres.; Dan Sweeney; Clay Conrad, COO, Intl. Sales; Karl Misling, Mgr., Intl. Tech. Sales
- Prevue Channel provides video clips of upcoming cable programming. Prevue Latino does the same in Spanish. Sneak Prevue is 24 hours of pay-per-view promotion. Prevue Express, Sportsvue and Weathervue also are available.
- Prevue is on Satcom C4. Video clips for Prevue Latino and Sneak Prevue on laser disc controlled by satellite-fed data.

PRIME INTERNATIONAL

2000 South Colorado Boulevard #11000

Denver, CO 80222 USA

ph: (303) 584-0300

fax: (303) 584-0303

**PRIME
SPORTS
INTERNATIONAL**

• Area served:

Europe, Pacific Rim, Asia,
Central/South America,
Middle East

• Parent Company:

Liberty Sports Inc.
600 East Las Colinas Boulevard
Suite 2200

Irving, TX 75039 USA

ph: (214) 401-0069

fax: (214) 869-2999

• Executives:

Ed Frazier, President, Liberty Sports; Mat Tinley, Managing Director; Jack Stanfield, SVP, Programming; Jonathon Spink, VP, Development; Bruno Oppenheim, VP, Programming & Operations; Bob Wheeler, VP, Media Relations

• Sales Contacts:

Dick Barron

Prime International
1800 West Loop South
Suite 1680

Houston, TX 77027 USA

ph: (713) 661-2800



Starrett Berry

Prime International

10000 Santa Monica
Suite 333

Los Angeles, CA 90067 USA

ph: (310) 286-6300

fax: (310) 286-6375

Heather White

Tudor House

35 Gresse Street

London W1P 1PN UK

ph: 44-171-323-0522

fax: 44-171-636-3941

• Languages available: English and Spanish (subtitling & voice-over available)

• Satellite: AsiaStar (Asia); PAS 4 (Europe); PAS 3 (Central/South America); PAS 2 (Pacific Rim); PAS 4 (Middle East/Southeast Asia)

• Programming:

Prime International is a division of Liberty Sports Inc. It distributes more than 4,000 hours of sporting events annually to more than 105 million TV households around the world. It is the exclusive international distributor for Liberty Sports and its regional sports networks throughout the United States, as well as several major networks throughout the world. Liberty Sports, Inc. owns and operates 15 regional cable sports television networks in the United States including all Prime Sports regional networks, Sunshine Network and interest in several other regional cable sports television networks, including Home Team Sports (HTS), Prism, SportsChannel Chicago, SportsChannel

Pacific, Sports Channel Philadelphia and SportSouth.

Prime International has the capability to deliver live sports broadcasts to all of its affiliates, and the ability to personalize those broadcasts with regional specialities. Serving more than 70 countries around the world, Prime International has access to 53 million international households. Selected programming rights held by Prime International include 10 national soccer leagues, Euro '96, FA Cup '97, European Cup, The World Cup '98, George Foreman Heavyweight Championship bouts, USA Boxing, US PGA, ATP Champions Tour, '96 Olympic Games (Asia), Rugby League World Cup and the NBA.

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avenue molière, 253 1060 brussels - belgium
☎ 32(0)2/346 39 10 - telefax 32(0)2/346 43 04


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"Charytín: Siquiatra de Mujeres"

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Charytín.

Beginning in May
Sundays
E.T. 2:00 PM & 10:00 PM
Reader Service Number 156



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variety game show in Argentina,
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Beginning in April
Monday-Friday
E.T. 1:00 PM & 9:00 PM

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Subscriber acquisition methods for MMDS

By Bill Underwood

More than any other single factor, success in pay TV is defined by a system's subscriber count. Though there are a number of factors that will impact a system, the actual number of paying customers is most often the difference between profit and loss. The number of subscribers needed to ensure profitability will naturally vary from one system to another.

Building goodwill among the community, top-notch customer service and speedy repairs are all very commendable, and necessary, characteristics of a successful business. However, unless an operator is able to attract a sufficient number of people willing to pay a monthly fee of X, none of the other really matters.

International Cable spoke with key executives in the pay TV industry to solicit their views on a variety of methods for marketing MMDS (wireless

cable) services. One discovery was that while wireless technology is quite different than its hardwire counterpart, there are many aspects of subscriber acquisition campaigns common to both.

First, the differences.

Preconstruction phase

The work of preparing to bring MMDS subscribers on-line actually begins before the first antenna is purchased. Subscriber projections form

If you want something done right ...

If you wish to receive a new seven-channel package of basic programming called the Sistema de 7 Canales from Multivision in Mexico City, have little money and lack the necessary credit card to secure a decoder box — no problem. You can now become a member of Multivision's ever-growing list of happy customers. All you need is a few pesos, a ladder and a decent sense of balance. (Or a young, strong neighbor who enjoys climbing on rooftops.) Just stop by the Multivision kiosk at the shopping center or grocery store nearest you and pick up a new do-it-yourself installation kit, complete with instructions and all the equipment you will need to become a subscriber.

In an effort to reach a large portion of the population, which heretofore had been excluded, the executives at Multivision developed a strategy allowing them to offer a basic programming package that would not require an in-home decoder. What they needed was an MMDS downconverter that could be activated or deactivated from the billing office. With that, a cable could be attached directly to the subscriber's cable-compatible TV set, thus eliminating the need for the set-top box. As a result, Multivision reached agreements with two U.S. firms, Pacific Monolithics and Gardiner Communications, to develop the needed downconverter. The result was an integrated, addressable, antenna/downconverter that is activated or deactivated by a computer system at the headend.

With this sophisticated electronic equipment in hand, Multivision was ready to begin marketing a new, low-cost basic package. In a city as large as Mexico City, it would take some time to complete a door-to-door or telemarketing campaign. How to reach the largest number of poten-

tial subscribers for the least amount of money and in the shortest amount of time? This is, of course, the age-old question for any marketing person. The answer for Multivision was retail outlets. By placing its personnel and product on display at high traffic areas, the company has been able to add subscribers at an incredible rate.

Go to a high traffic area in Mexico City, such as a shopping center, and you are almost sure to find a representative of Multivision there to answer any questions you may have about its programming. Want to view the programming the company is offering? Just take a look at the monitors neatly placed around the booth. Sample programming is shown constantly to attract attention to the promotion and whet the appetites of prospective subscribers. When sufficiently enticed, the consumer pays approximately 100 pesos (US\$30 as of this writing) and goes home to install his hardware. He is then charged approximately 30 pesos per month (\$11) for the Sistema de 7 Canales package.

When asked how the people of Mexico City had accepted this new idea, Humberto Sanchez of Multivision said that all was going well so far. He gave strong supporting evidence by adding that the company had averaged approximately 15,000 new subscribers per month since first offering the new pack-

age, and anticipated adding that many or more per month for all of 1995.

With the success of this new programming package and 'self-service' installation, Multivision has given new meaning to the phrase, "If you want something done right, do it yourself," — and has quite possibly started a trend others will follow. — BU



In Mexico City, pay TV is a do-it-yourself affair with Multivision's Gardiner antenna/downconverter packages.

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the basis for an operator's business plan, making it imperative for a prospective operator to know which portions of the service area figure to yield the highest number of subscribers. Not only will this ensure that the proper transmit and receive antennas are chosen, it also will enable the operator to make informed decisions on how to direct his marketing efforts.

Out of sight, out of luck?

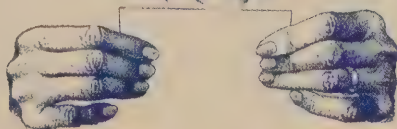
One of the most obvious differences between conventional cable and MMDS is the line-of-sight requirement inherent in the latter. Special equipment is often needed to reach potential subscribers in certain areas where blockage exists. For example, the market may include a cluster of homes behind a large hill or building that cannot be "seen" by the transmit antenna. Reaching such an area would require the use of an on-line repeater. Not only would the cost per sale be higher for this group of subscribers, their location would no doubt place them lower on the list of priorities than a neighborhood with no line-of-sight limitations.

When choosing the most effective method or methods for attracting subscribers to a system, there are many things to consider. Whether or not a clear line-of-sight exists will no doubt influence an operator's advertising decisions. Does one opt for mass media, for example, if a large portion of the service area will require special equipment and increased installation time? Or would the operator be advised to localize his advertising, confining his efforts to those high potential/low risk areas?

And now, the similarities.

Direct mail

Dave Marshall of International Cable and Telephone (ICT) rates direct mail as one of the least effective methods for attracting subscribers to a system. "The effectiveness of direct mail is decreasing rapidly," he said. Once a high penetration rate of basic subscribers is attained, "you have to beat up the remaining percentage pretty hard."



"By assigning each group of foot soldiers to a particular neighborhood, installations can be localized, making for more efficient use of the installers' time."

Marshall's company has had extensive experience in marketing a variety of pay TV services, including MMDS, conventional cable and direct-to-home, both in the U.S. and abroad. He went on to point out that the mail system is virtually nonexistent in some places, concluding that direct mail is not an option in many instances.

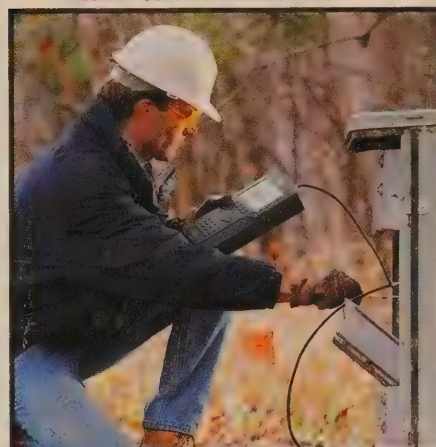
Broadcast TV

While broadcast TV is arguably one of the most powerful tools in advertising, it is most effective when "used in a cooperative arrangement with other pay TV companies, due to the station footprint overlap and the high cost of television advertising," Marshall said. He added that broadcast TV would be most effective in established markets that are already built. He also said the target area is far too broad and would likely generate calls from parts of the city where you are not yet prepared to complete installations due to line-of-sight limitations or other factors.

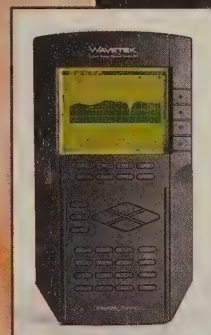
Direct sales

International Cable also spoke with Olie Lovato, president of Orion Broadcasting Inc. The Atlantic City, New Jersey, U.S.A., company has recently expanded its system to 31 channels and is in the midst of an aggressive roll-out campaign. "We tend to concentrate first on the line-of-sight areas that are easiest to reach and install," Lovato said, adding that his company had experienced a great deal of success with direct targeting by "foot soldiers" (door-to-door salespeople) to attract subscribers.

"The best thing about the foot soldiers is that they don't cost anything," he said, noting that no commission is paid until such time as a new subscriber is



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added. The first step is to "seed the area" by canvassing and distributing flyers.

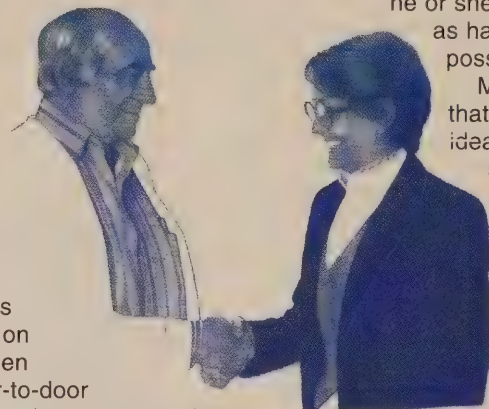
ICT's Marshall agreed with Lovato's assessment: "Probably the most-targeted form of marketing in any country is direct sales, the personal touch of face-to-face contact with the consumer." A well-crafted, well-organized direct marketing campaign can net an operator between 5% and 40% of nonsubscribers in a given market, according to Marshall. "The success varies, depending on how long it has been since the last door-to-door sweep and the offer the reps are using in the field," he added.

Organizing your market into small, manageable areas prior to beginning marketing efforts can pay big dividends, our experts agreed. By assigning each group of foot soldiers to a particular neighborhood, installations can be localized, making for more efficient use of the installers' time.

Increased visibility is another benefit of localized installations, according to Lovato. "When you have several installation trucks in the same neighborhood day after day, the people who live there see you as a busy company. The more they see your name, the more likely they are to eventually give you a call or respond positively to your door-to-door efforts," he said.

Another benefit is that the sales manager can keep accurate records of each home in the service area, making particular note of why the resident did not subscribe. "This information is almost as important to us as a new subscriber," Lovato said, adding that finding out why customers said no can help an operator learn how to make its services more attractive to the consumer.

Orion Broadcasting gives each rep a set of "street sheets," a listing of each house on each street in his assigned area. Only after the rep has gone to each home on his set of sheets (and he must make several attempts to contact the resident), making the appropriate notations, (sale, no-sale, reasons why, etc.), will he be assigned another portion of territory.



"Not only does this allow us to track customer responses," Lovato said, "but it also allows us to review the effectiveness of a particular rep. If, for example, we find an inordinate amount of 'not-homes,' or a lower than average closing ratio coming from one rep, we may be able to determine that

he or she is not working as hard as might be possible."

Marshall agreed that it was a good idea to localize the sale and installation as much as possible, and added that in the U.S., giving the rep a print-out of all non-subscriber addresses is an effective way

of managing salespeople. Reflecting on his experience in countries outside the U.S., however, he said that creative measures are sometimes called for. In Caracas, Venezuela, for example, Marshall said, "It's not door-to-door as usual," noting that certain issues must be addressed prior to commencing any sales campaign. Some of the questions that must be answered, are: Can I gain access to the building? Who do I talk to in order to gain that access? How many people need to be offered free service before I can get in? And finally, is it safe to go in once I do gain access? These questions are all posed "after the building's 'el presidente' has signed the contract allowing the pay television company to build," he said.

Marketing pay TV services of any kind abroad can be "interesting" according to many experts. Daniel Sawicki of Hero Communications was asked to describe some of the things one faces in Nigeria, for example. "What do you face? You have to face reality," he said, only half joking. "In Nigeria we install headends in places that sometimes don't even have electricity yet." The conventional methods of pay TV marketing do not apply in a place like Nigeria where the customer simply purchases an antenna and downconverter "from one of many sources," and he is in business.

"Direct sales in a country like the Cayman Islands is quite different than in the U.S.," Marshall said. "In the U.S., the operator usually gives the

sales rep a printout and says 'go get 'em.' In the Cayman Islands the rep gets a tourist map and some number 15 sunscreen and is told 'good luck.' There just is not a data base."

While this may not be as organized as some campaigns Marshall has been involved with, he insisted that "this is not entirely bad," noting that "you have to walk by every home anyway, so just knock on all the doors." One of the obstacles Marshall faced during a recent campaign in the Cayman Islands was not subscriber retention, but rather employee retention. "The people in the Caymans are fantastic," he said. "They invite you in or invite you to dinner. Sometimes it's hard to go knock on the next door. One of our representatives who is in the Caymans now refuses to return. She simply fell in love with the island lifestyle."

Reflecting again on his experiences in Caracas, Marshall made note of one major difference between door-to-door sales in the U.S. and this Venezuelan city. The rep sets up a live feed in the community room of each high-rise and then "papers," or tags, each door with a note reading, "Presentation in the lobby between 5-9 p.m." Beginning at 5 p.m., one rep begins knocking on doors and asking the residents to come down for a demonstration. When the residents arrive in the lobby, a couple of reps are there to explain the packages and pricing.

When asked to rate the effectiveness of the live feed, Marshall indicated it was very beneficial. "There is nothing like handing a fully loaded remote control to a man for the first time," he said. The look of wonder and amazement in his eyes "is almost enough to make you both break down and cry." After a few days of live demonstrations, it's time to start knocking on doors for in-home presentations. The group demonstrations are so effective, Marshall said, that "before you start cold-calling you may have already achieved a 30% to 60% penetration from your demonstrations in the lobby." This is in a city with two established MMDS operators, a 28 GHz system and two hard-wire cable systems.

Telemarketing

There are essentially two types of telemarketing campaigns: outbound and inbound. The former makes use of cold-calling to contact prospective customers, while the latter relies on one or more forms of advertising to create sales opportunities by prompting residents to pick up the phone and call.

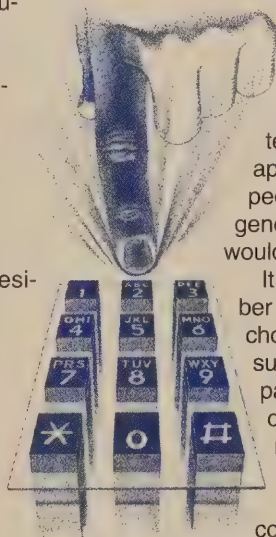
Our experts generally agreed that telemarketing efforts are most effective for adding upgrades to your subscriber base. By calling on existing customers and asking them to add a premium service, chances of success are much higher than they might be if calls were simply made at random. One reason for this is that in many cases residents are simply inundated with telephone calls from various organizations, usually soliciting donations of some sort, and they have grown weary of this type of contact.

Another drawback of a telemarketing campaign is the fixed cost associated with this type of effort. Unlike the direct door-to-door sales representative who is paid only after a sale is made, the telemarketer is generally compensated on an hourly basis, with bonuses paid for sales. When asked if it might be advisable to use telemarketers to make appointments for in-home sales people, our respondents were in general agreement that this would be a waste of resources.

It is clear that there are a number of methods an operator may choose from when developing a subscriber acquisition campaign. The effectiveness of any of these will be influenced by a number of factors including, but not limited to, the location of the service area (read: country), line-of-sight limitations and what type of offer an operator is able to arm its reps with.

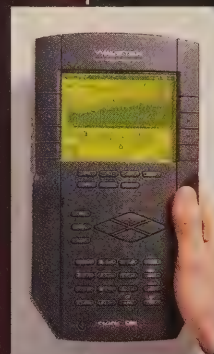
Our findings indicate that, at least among those we spoke with, a well-managed door-to-door campaign seems to be the most effective for an MMDS, or any other pay TV, system. **IC**

Bill Underwood is an independent media consultant, who over the past 10 years has directed subscriber acquisition campaigns for major MSOs in the United States. He is a former member of the Wireless Cable Association International's National Board of Directors.



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Home shopping boom targets Latin America

By Rick Mendosa

Suddenly cable viewers around the world can shop at home. The American phenomenon of home shopping networks is on the verge of picking up hundreds of millions of new viewers everywhere from the Caribbean to Japan to China. Already, cable home shopping is a reality in Mexico, the United Kingdom and Canada as well as the United States.

Since home shopping is hot right now, the field is loaded with wannabe producers hoping to make a peso or a yen or a yuan. Not all of them are going to make it.

Carrying home shopping by cable TV to Latin America is a tiny startup called the TeleCompras Shopping Network. This Spanish-language cable shopping channel has big plans — and big problems.

CEO Gabriel Martinez runs TeleCompras out of offices in Miami, Florida, U.S.A. The 32-year-old Martinez and unnamed partners reportedly invested US\$5 million to start up their operation geared to Hispanics in the U.S. and Latin America.

TeleCompras, however, may have just set a new record for the shortest-lived cable network. They turned on the lights last November 28 in a rented production studio in Medley, Florida, U.S.A. and turned them off on January 4. Then, on February 9 they began producing tapes again, this time at the network's Miami headquarters.

The network, however, has at least temporarily lost its uplink. Hero Productions had rented satellite space and studios to TeleCompras, according to Hero Vice President Daniel Sawicki. Hero has brought suit against TeleCompras for breach of contract, Sawicki says.

TeleCompras is countersuing, according to Affiliate Director Greg Rodriguez. "Originally, we were going to build the studios here, and Hero was going to do the uplink only," he relates. "They offered us a dream of a facility. And that's all it was — a dream. All I can tell you is that they are going to be



Established home shopping channels have much larger markets now than TeleCompras even dreams of reaching. HSN and QVC alone sell more than \$2.2 billion worth of merchandise per year.

sorry, very sorry. Our attorneys advised us not to disclose anything else."

Rodriguez says he expects to have a satellite uplink again before April 1. Who's going to do it? "I have no idea yet," he responds.

Meanwhile, TeleCompras is shipping

3/4-inch tapes to the network's cable customers. Rodriguez says all of them stayed with the network during its difficult infancy.

Rodriguez admits that TeleCompras ran short of cash, not only turning off the lights but also forcing the staff to

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work without pay. He doesn't deny that some of original backers pulled out, saying they have found alternative sources of financing, but he can't disclose who they are.

It has been a difficult struggle to get on the air, Rodriguez concedes. "But we did it. Not once, but twice."

Shopping around the globe

Before looking at TeleCompras in detail, let's take a look at other home shopping services around the world. The experience of some of these much better financed operations indicates

that the prospects for TeleCompras may well be grim.

The first TV retailer, Home Shopping Network Inc. (HSN), started in Florida in 1977. Since then the field has become decidedly crowded. HSN today reaches an estimated 60 million viewers; its biggest competitor, QVC Inc., reaches 50 million, about equally divided between cable and broadcast. ValueVision International, the third-largest home shopping network, is seen by 12 million viewers.

But other retailers, including Fingerhut Companies and Spiegel Inc., have

canceled or retrenched their investments in the fierce competition for the limited number of channel slots. Fingerhut pulled the plug on its planned home shopping service, S The Shopping Network, in November. Fingerhut executives say that they canceled the launch of S because they were unable to reach agreements with investors that would have removed the risk on continuing losses. Catalog 1, a joint venture of Spiegel and Time Warner Inc., scaled back its broadcast hours in February.

Internationally, QVC has two joint ventures that continue to operate in the red. In Mexico, CVC Telemercado Alameda began broadcasting in November 1993. It's a 50/50 joint venture of QVC and Mexican media conglomerate Grupo Televisa S.A. de C.V. CVC reaches most of Mexico's consumers, 15 million Mexican households over the air and another 250,000 by cable, according to Ron Giles, executive vice president for international retailing at QVC's headquarters in West Chester, Pennsylvania, U.S.A., a suburb of Philadelphia.

Televisa has put together a network of 57 broadcast stations that carry CVC either 12 or 24 hours per day. In addition, Televisa's cable subsidiary, Cablevision SA, shows CVC 24 hours per day.

How is CVC doing? "Now that CVC has been on the air for more than a year, it has quite a head of steam," Giles maintains. "It does take considerable resources. We and our partner [Televisa] are certainly willing to invest in building the franchise, and if that means absorbing some losses, we are not unhappy to do it."

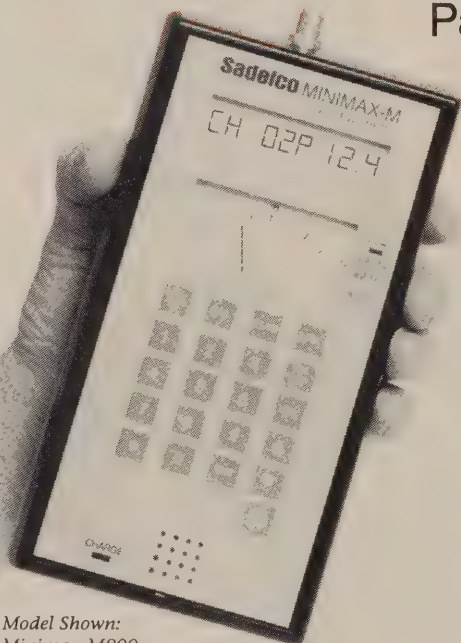
While Giles won't say how much CVC costs its owners or how much they invested, it has been reported that QVC and Televisa each invested US\$5 million in the deal. They also plan to expand to all of South and Central America as well as Spain and Portugal.

Furthermore, while CVC continues to lose money, it is more successful than QVC's joint venture with British Sky Broadcasting Ltd. (BSkyB) in the U.K. In just a six-month period last year, the two ventures together cost QVC US\$20 million, according to reports in the *Philadelphia Inquirer*.

"It is not as badly structured as the U.K. venture," says James Meyer, director of research for securities analysts Janney Montgomery Scott in Philadelphia. "There, QVC is putting up

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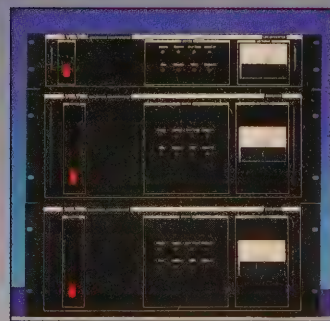


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all the money and absorbing all the losses until it gets to break-even. In Mexico, it is losing money, but issues like telephone services and the fact that most Mexicans don't have credit cards seem to be more surmountable problems than a badly structured deal."

Looking up

Elsewhere, home shopping is looking up. The other giant North American telemarketer, HSN, based in St. Petersburg, Florida, U.S.A., also is expanding internationally. Together with Tele-Communications Inc. and Sumitomo Corp. of Japan, it plans to establish a TV shopping business in Japan. No timetable for the Japanese operation has been fixed, says spokesperson Louise Cleary, HSN's vice president for corporate communications.

The Canadian Home Shopping Network (CHSN) now will be able to show moving images as the result of a government ruling in January that exempts teleshopping services from the requirement to hold a broadcasting license. Previously, CHSN would only present its products in a still frame format. CHSN, a division of Rogers Broadcasting Ltd., a wholly owned subsidiary of Rogers Communications Inc., markets consumer products to cable subscribers across Canada.

Undeterred by the problems faced by U.S. home shopping services, another new home shopping network expects to begin broadcasting to millions of Chinese consumers by the time this issue of *International Cable*

"Since much of the market depends on impulse purchases, Campbell of Campo Cable thinks TeleCompras eventually will be a winner."

appears. This start-up, International Shopping Network (ISN), is based near San Diego, California, U.S.A. Its owners include President John Wang and co-founder Victor Woo, both of whom immigrated to the United States about 30 years ago from China.

In an exclusive joint venture with government-run China Central Television, ISN will start broadcasting in late March with a half-hour program at 9:30 nightly, says Vice President Frank Griswold. The program will be rebroadcast about noon the next day.

Initial plans are for the show to be broadcast over-the-air in Beijing and carried by cable to stations reaching an estimated 100 million viewers in the rest of the country. Their long-term goal is to broadcast up to 12 hours per day and reach 800 million people.

"The format of our program, called World Window Shopping, will be to open in Beijing," Griswold says. "We will then take it to a world city like San Francisco or Paris, where the Chinese hosts and hostesses there will take the viewers window shopping, stopping where there is a product to be promot-

ed. Then it will move into a two-minute infomercial under the creative control of the vendor."

Griswold declined to say how much financial backing ISN has for the venture, noting that the company is privately held. He did point out that ISN had much lower start-up costs than a full-time cable service like TeleCompras.

Selling the sizzle

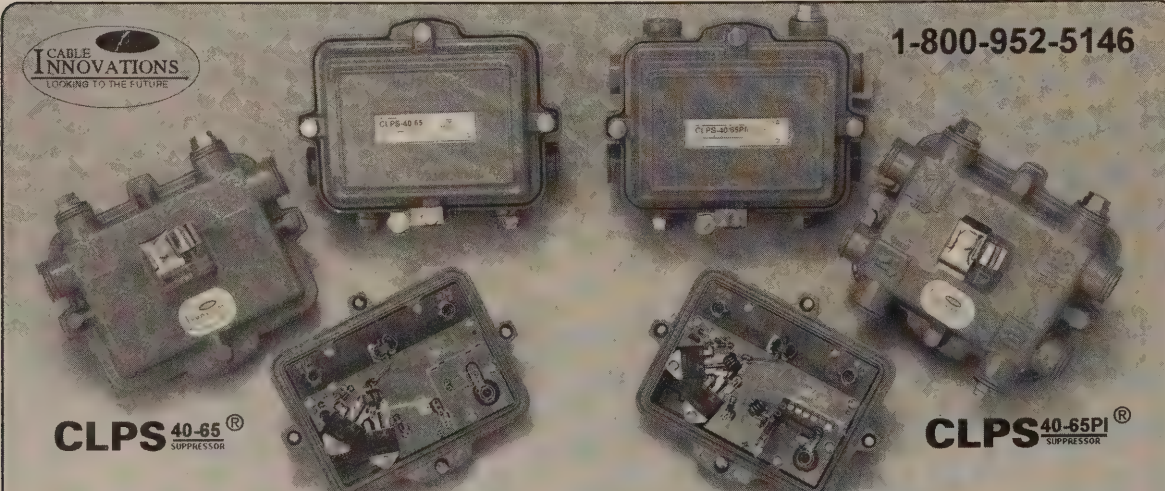
TeleCompras is a good case study of the difficulties faced by home shopping services in relatively new home shopping markets around the world.

Martinez, coming from a background of fashion retailing and direct marketing, sells the sizzle. "The difference is that we blend in live footage of the product in use. We show a dress on location. It is more merchandising than television."

Small cable franchises and SMATV operators scattered around the U.S., Puerto Rico and the Dominican Republic were the first to sign up for the service. TeleCompras hopes to reach 1.2 million Mexican households at press time and roll out to the rest of Latin America this month. By the end of the year it plans to be in Spain.

The same feed is scheduled to go to each country except Brazil, where TeleCompras will produce its programming separately in Portuguese, Martinez says. While prices will be shown in dollars on the screen, when viewers call to order an item, they will be told their price in the local currency.

Some cable operators think he has



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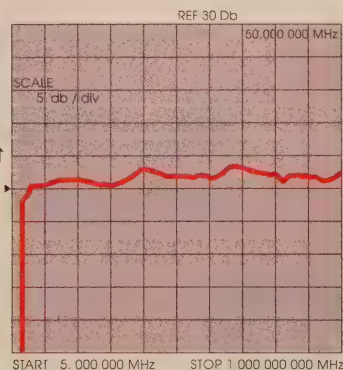
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a winning formula. "We have carried QVC since they started," notes Al Ferraro, general manager of Teleponce Cable TV in Ponce, Puerto Rico, which has 25,000 subscribers. "But our QVC sales don't do near as well as the national average [in the U.S.]. I think it has a lot to do with the language. I've been trying to get QVC to do something about it, but they haven't done anything. Then, all of a sudden TeleCompras came by and I thought, 'Let me slip this [TeleCompras] in here.'"

Alan Campbell, president of Campo Cable in Miami, was another early TeleCompras adopter. "They have a superior product in Spanish compared to what Home Shopping has in English, and I am totally bilingual," he declares. Campbell runs 13 SMATV systems for mostly Hispanic apartment complexes.

Another incentive for cable operators is a commission schedule that can be sweeter than the typical 5% that QVC or HSN pays. "It's the same or bigger and better depending on the market," Martinez says. "I don't want to say much, because that has been one of our edges." Ferraro, however, says

"The method of payment, credit cards, is the other problem for international home shopping. Only a fraction of Latin Americans have them."

TeleCompras pays his franchise 8%.

Martinez projects that TeleCompras will reach more than 5 million Hispanic homes and plans eventually to take his company public. This doesn't appear to scare HSN and QVC executives. "More power to them!" exclaimed HSN's Cleary, when she learned the startup was attempting to do it on an investment of US\$5 million. "I'm happy to see them take a whack at it," said QVC's Giles.

Established home shopping channels have much larger markets now than Martinez even dreams of reaching. HSN and QVC alone sell more than \$2.2 billion worth of merchandise per year.

Most of it is jewelry. An impulse buy, it shows up well on the home screen and carries a substantial markup. Collectibles, clothing, small electronics and housewares comprise much of the rest.

Since much of the market depends on impulse purchases, Campbell of Campo Cable thinks TeleCompras eventually will be a winner. "Hispanics tend to buy more on impulse and off television than Anglos," he declares. "I know that from years of advertising experience in Venezuela. It appeals to the type of buying that they are accustomed to in their culture."

For TeleCompras, jewelry will be important, Martinez says, but admits that he hasn't done any formal market research. "It is difficult for me to know [what will be TeleCompras' top category], because we have only just begun. We are selling everything but the kitchen sink. Jewelry. Fashion. And electronics is very important."

TeleCompras' target audience is both male and female. "We are targeting everybody, because we don't know what our response is going to be," Martinez admits. "I am not going by statistics. I am going by reality."

Since most studies show that only

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about 20% of TV shopping viewers are men, Martinez certainly is ignoring the statistics. HSN, for example, says 82% of its 5 million active Home Shopping Club members are female.

The target age range for most established home shopping retailers is between 24 and 34. Martinez is going after them, but says TeleCompras will also have some special emphasis on younger consumers. "We have a segment called Telehiphop. It's a segment of selling jewelry and fashion, but for the younger crowd. Nobody has addressed that, but they spend a lot of money. We also have a segment on children's goods, including children's jewelry. Latins spend a lot of money on children."

The two largest problems faced by international home shopping networks are fulfillment and method of payment. Martinez professes not to be concerned about either. Distribution and inventory control are not difficult problems, he says. "I have done a lot of exporting, so I am familiar with how it works. We are going to do fulfillment either from each country or from shipping points in Latin America, for example, from free zones."

The method of payment, credit cards, is the other problem for international home shopping. Only a fraction of Latin Americans have them. In Mexico, for example, perhaps 3 million of its 85 million people are card holders. Still, that's not a problem for a cable service, maintains TeleCompras' Rodriguez. "The people [in Latin America] who have cable also have credit cards."

In spite of obstacles that give other networks pause, as a true salesperson Martinez is relentlessly upbeat. "Hispanics love to buy, and they do buy. We've proved it. They are buying everything. It's amazing!"

For him, the winning equation is cable + credit cards = consumers. And he's willing to bet \$5 million that he's got the right formula. Whether that will be enough remains the open question. **IC**

Rick Mendosa is a freelance writer based in Carpinteria, California, U.S.A., and the senior contributing editor for "Hispanic Business" magazine. He has edited and written for various newspapers, magazines, the U.S. Army, U.S. Civil Service and U.S. Foreign Service, with emphasis on business and politics.

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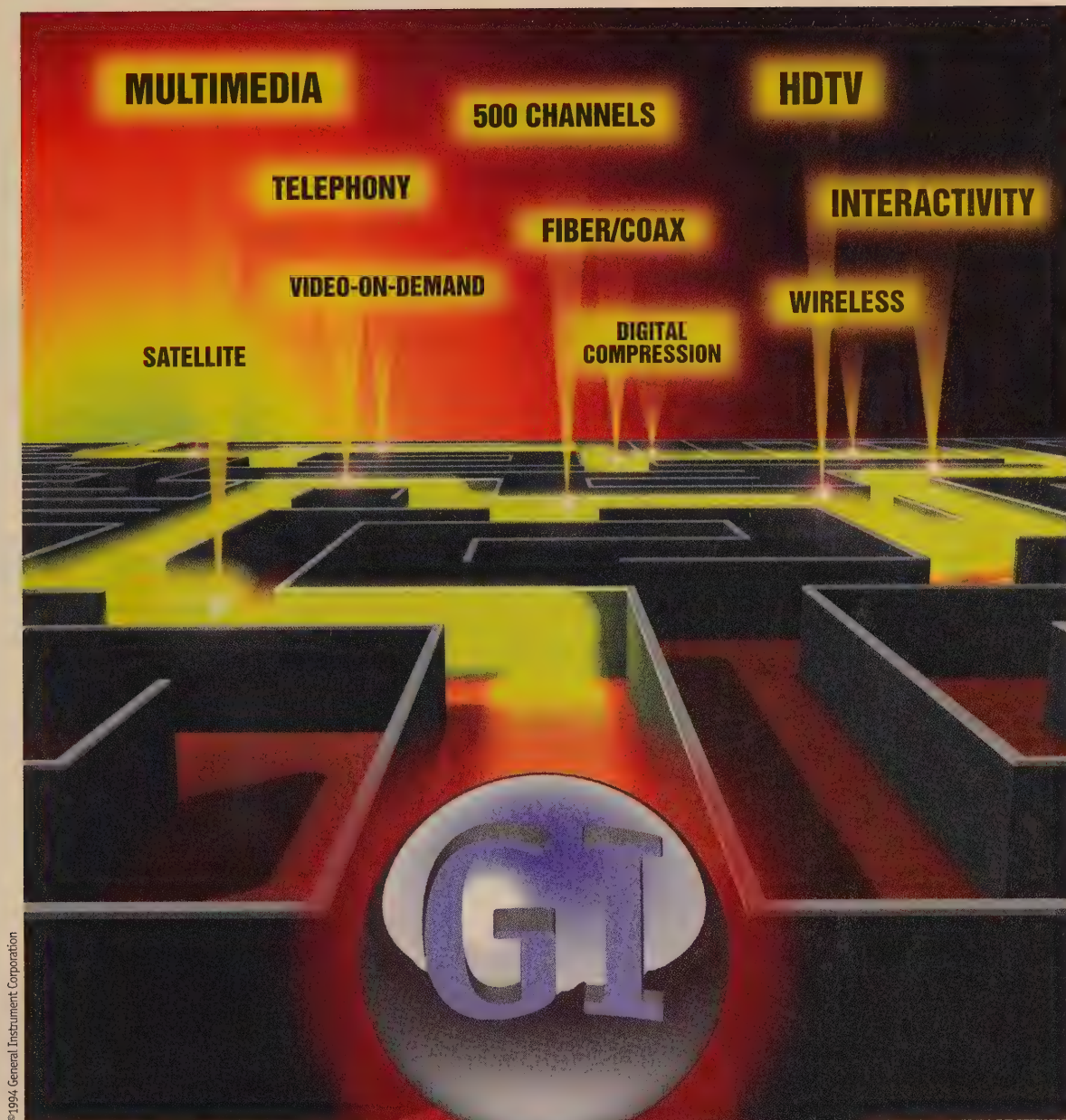
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Reader Service Number 42

Capital L for LIG

By Jim Costello

New forces in telecommunications are gathering momentum in the U.K.'s capital. At its heart, City of London Telecommunications is busy laying fiber and offering synchronous digital hierarchy (SDH)-based networking; similarly, MFS Ltd. also serves the capital's financial and business communities, offering Europe's first commercial LAN-to-LAN (local area network) interconnection service based on asynchronous transfer mode (ATM).

The U.K. CATV industry has produced its own flavor of operator that threatens to eclipse these London rivals and provide serious competition to BT and Mercury Communications, particularly for high-bandwidth customers. The London Interconnect Group (LIG), announced in November 1994 but operational for much of that year, is a consortium of six of the leading CATV operators.

The impetus for LIG came largely from Louis Brunel, its first chairman and, at the time, managing director of Videotron. His commitment, said John Sheridan, LIG's second chairman, enabled him to sell the vision of LIG to the consortium.

Based in West London's Hammersmith area, LIG comprises:

- Cable London: jointly owned by Comcast International and TeleWest.
- The Cable Corp.: owned by General Cable and TeleWest, and the first U.K. CATV company to offer telecommunications services.
- The part of Bell Cablemedia that was formerly Encom Cable TV & Telecommunications Ltd.: Bell Cablemedia is the third largest CATV operator in the U.K., with 2.1 million premises in its franchises nationwide. Now that Encom is no more, the Bell Cablemedia name and logo will take its place. Sheridan is chief operating officer, responsible for the operations of Bell Cablemedia companies in the U.K.
- Nynex CableComms: the second largest U.K. CATV operator with 2.5 million premises to target in 17 franchises.
- United Artists Communications: part of TeleWest; runs a daily community TV channel, Cable Today.
- Videotron: London's largest CATV company with 1.4 million premises within its license.

London Interconnect Group franchise areas



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John Sheridan: "The fiber trunk connectivity is a backdrop to establish more effective, more expansive geographical coverage and a larger base of common customers earlier than the individual members could ever deliver."

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- Expertise and resource base from some of the world's leading CATV/telecommunications providers

The result is coverage of the huge potential population of London, excluding only pockets such as Westminster Cable, a BT subsidiary. The consortium already has completed a multimillion pound project to link the six individual fiber-optic networks, forming a fiber-based communications highway — a network of networks — around London and beyond. This highway is essentially a ring, with many small loops spurring off this backbone.

The LIG itself represents the franchise-holders' interests in developing applications and projects making best use of this connectivity. Its aim is to provide advanced business telecommunications services as well as innovative CATV services to London's residents and businesses.

Expansive coverage

John Sheridan summarized the advantages of LIG and its backbone to its members: "The fiber trunk connectivity is a backdrop to establish more effective, more expansive geographical coverage and a larger base of common cus-

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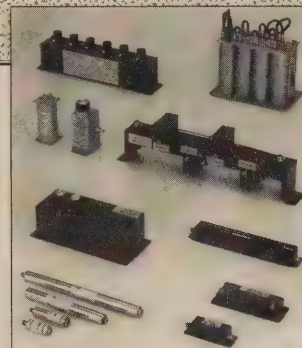
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tomers earlier than the individual members could ever deliver."

As well as harnessing the strengths of its members, LIG presents a single point of contact to customers. Its scale of operations and increasingly impressive customer base enable LIG to offer a credible, competitive alternative to the existing telecommunications suppliers. LIG also aims to exploit fully the advantages of SDH transmission and advanced switching technology.

"There have been limited experiments in the U.S., but nothing on this scale," said Sheridan, agreeing with industry estimates that LIG members have already invested in excess of £2 billion in laying over 7,000 km of cable in and between their franchises.

Initially, LIG serves an area known as Greater London bounded by the M25 motorway ring, infamous for its congestion. Cable is being laid at the rate of 2,000 km each month, extending LIG's reach beyond Maidenhead in the west and Gatwick Airport to the south of London.

LIG's board includes the managing directors of the six companies, and unanimity on all major issues and direction is clearly crucial. It meets each month, supported by sub-committees and three affiliate companies: Home Cinema, Integrated Communications Services (ICS) and Integrated Communications Network (ICN).

As the enabler to bring these components together, David Venn is LIG's full-time managing director. He cut his interconnect teeth in Australia as a key member of the Optus Communications team that negotiated a license to compete with Telecom Australia: "LIG is an alliance, a joint venture in the middle of the interconnect concept and a vehicle for funding projects jointly."

The fibers providing links are owned and operated by the individual franchises, including local management. However, the services they carry are driven centrally by LIG.

Home Cinema, the pay-per-view opportunity, is currently a highly sensitive issue. "The consortium is looking at major programming providers and studios in ongoing discussions," said Sheridan. Talks include not only pay-per-view in London, but also consider providing a national service.

"Technology is not an issue for us. We are building a fiber/coaxial hybrid network with no bandwidth constraints. Most of London for us is fiber-to-node level, a few hundred feet from the customer. BT's biggest problem is that the final drop is a single twisted copper pair of wires," said Venn.

Interconnection three or even two years ago would have been a challenge, he adds, but digital fiber transmission at each headend makes it feasible: "The members have each adopted the latest technology; about 130 km of additional fiber was pulled to link the headends specifically for LIG."

For LIG members, domestic delivery is over coaxial with twisted pair wrapped around it; business telecommunications is served with fiber to the premises.

Stimulate programming

One of LIG's first tasks was to stimulate cable-exclusive programming for the London market. The Performance Channel, for instance, is an arts and entertainment initiative that owes its existence to LIG. The channel does not have the resources to lease a satellite transponder for U.K.-wide



LONDON INTERCONNECT GROUP

coverage, nor is it feasible to negotiate with separate London franchises. Performance enjoys a Londonwide CATV subscriber audience by delivering its program tapes to a single headend.

In November 1993, LIG awarded the right to run the first-ever channel purely for London news and entertainment. The battle for Channel One was fierce before a bid from Associated Newspapers and SelecTV defeated the Mirror Group and a joint bid from Carlton Television and London Weekend Television.

Associated Newspapers owns *The Daily Mail* and the *Evening Standard*, a right-of-center national daily paper and,

in the same vein, London's only daily evening paper. It won, says Sheridan, on the basis of its expertise, favorable demographics, attractive production capabilities and the credibility of a 100-year-old publishing company.

"Something that the bigger broadcasters would never try," said the publicity at Channel One's launch on November 30, 1994, as a 24-hour, seven-day experience. Channel One is based on news-gathering teams of roving video-journalists, print journalists, professional and, controversially, amateur camcorder operators. In turn, LIG intends to use the opportunity in those newspapers of raising awareness of cable with editorial supplements and advertising.

An LIG subsidiary company, ICS, comprises a small advertising sales team currently selling across 14 channels and over the six franchises. The backbone network enables ICS to insert the adverts at one location (New Maldon in United Artists' franchise) to reach all members. "We are moving towards the concept of a 'super headend' receiving signals off the satellite or via tapes and distributing them across a far wider area than usual," said Venn.

Moreover, LIG is the catalyst for types of programming new to the U.K., such as language-specific channels. ICS already is making a profit, which flows back to the partners based on the size of their customer base. The appeal to advertisers is as much the vision of 3.3 million homes within the M25 as current viewing figures.

"It is very exciting for us to have a profitable revenue stream at such an early stage in a business centered on expensive operational support networks," said Sheridan. "It would be almost impossible to achieve in a single franchise."

Business opportunities

Aware that a fully digital telecommunications network spanning Greater London is an unprecedented business opportunity, LIG launched ICN in November 1994 after a year of pilots. With access to the resources of the six LIG members, ICN offers customers a single point of contact for all sales and service needs, focusing particularly on businesses demanding multisite communications.

Services range from protected fiber-optic networks connecting geographically remote offices and branches, to fully featured telephone systems designed to improve business efficiency. Operations include digital applications based on digital private networks, and broadband links enabling information transfer between computers and users. Recent contract wins include the *Daily Telegraph*, Southwark Council and IBM/ITN.



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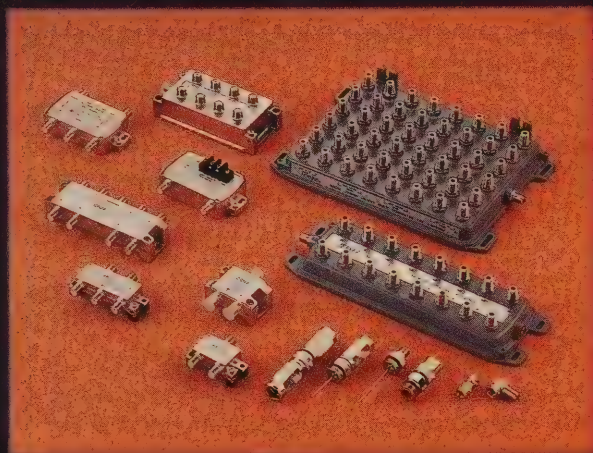
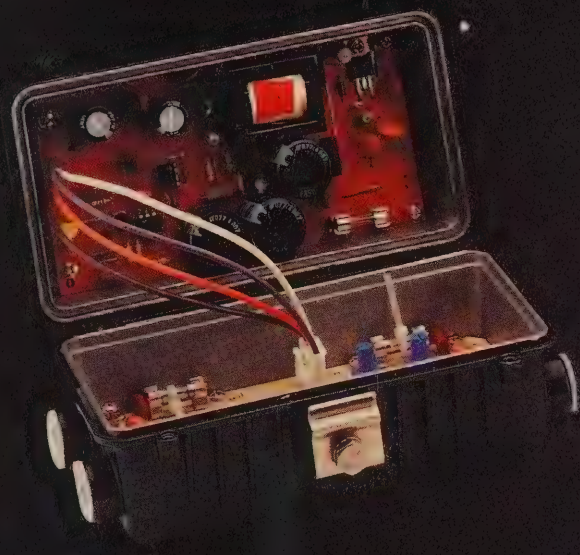
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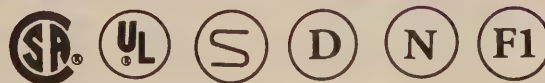
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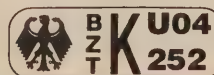
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"As well as harnessing the strengths of its members, LIG presents a single point of contact to customers."

The ability to deliver high-quality video and broadcast TV alongside traditional voice and data services gives LIG a unique opportunity to develop fully integrated multimedia communications. Service development potential includes videoconferencing, long-distance learning, business TV and access to on-line information services such as Reuters and Dow Jones.

"Each franchise was offering business telecommunications services," said Venn, "but we now offer a single face to a burgeoning London market that has already declared itself dissatisfied with current providers."

LIG targets customers needing 2 Mbit/s and above; one has already leased a private ring around London potentially delivering 2.3 Gbit/s. No other operator is currently willing and probably not even able to consider providing bandwidth on that scale. Another client links two mainframe computer sites in real-time by 40 x 200 Mbit/s circuits.

"Surprisingly, many of our clients do not involve the City of London," continued Venn. "Many financial institutions have moved their data centers, for instance, to the suburbs where high-bandwidth circuits are traditionally not available."

Southwark Council, a local government body, links nine private automatic branch exchanges (PABXs) on various



David Venn: "Technology is not an issue for us. We are building a fiber/coaxial hybrid network with no bandwidth constraints."

sites in a fully resilient fiber ring offering 155 Mbit/s maximum. The alternative was one or, if money allowed, two 2 Mbit/s maximum circuits from BT or Mercury between each site.

LIG currently has 700 SDH nodes on its fiber network that supports "drop and insert" connections directly to users if necessary. Businesses also are considering private ATM across London, for which circuits of even 34 Mbit/s would otherwise be prohibitive or not available.

"We are already talking with customers about supplying WAN capabilities for their own ATM-based networks. While public ATM offerings are a long way off, we see value in working with ATM suppliers and customers to deliver private ATM networks. ICn's activities and the demand it is tapping foreshadows a new type of broadband infrastructure supporting many types of services and customer groups," added Venn.

The next challenge for U.K. CATV operators is to repeat LIG's success in other areas, notably the northwest of England in which Nynex has already built a multifiber ring linking contiguous franchises and is discussing interconnect deals with adjoining operators. The goal would be a network to rival that of any existing or emerging national operator in the U.K.'s deregulated telecommunications environment. **IC**

Jim Costello is a freelance writer based in Middlesex, England.

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34. CAD Software, Mapping
35. Commercial Insertion/Character Generator
36. Compression/Digital Equip.
37. Computer Equipment
38. Connectors/Splitters
39. Fleet Management
40. Headend Equipment
41. Interactive Software
42. Lightning Protection
43. Vaults/Pedestals
44. MMDS Transmission Equipment
45. Microwave Equipment
46. Receivers and Modulators
47. Safety Equipment
48. Satellite Equipment
49. Subscriber/Addressable Security Equipment/Converters/Remotes
50. Telephone/PCS Equipment
51. Power Suppls. (Batteries, etc.)
52. Video Servers

E. What is your annual cable equipment expenditure?

53. up to \$50,000
54. \$50,001 to \$100,000
55. \$100,001 to \$250,000
56. over \$250,000

F. In the next 12 months, what fiber-optic equipment do you plan to buy?

57. Fiber-Optic Amplifiers
58. Fiber-Optic Connectors
59. Fiber-Optic Couplers/Splitters
60. Fiber-Optic Splicers
61. Fiber-Optic Transmitter/Receiver
62. Fiber-Optic Patchcords/ Pigtail
63. Fiber-Optic Components
64. Fiber-Optic Cable
65. Fiber-Optic Closures & Cabinets

G. What is your annual fiber-optic equipment expenditure?

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67. \$50,001 to \$100,000
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69. over \$250,000

H. In the next 12 months, what cable test & measurement equipment do you plan to buy?

70. Audio Test Equipment
71. Cable Fault Locators
72. Fiber Optics Test Equipment
73. Leakage Detection
74. OTDRs
75. Power Meters
76. Signal Level Meters
77. Spectrum Analyzers
78. Status Monitoring
79. System Bench Sweep
80. TDRs
81. Video Test Equipment

I. What is your annual cable test & measurement equipment expenditure?

82. up to \$50,000
83. \$50,001 to \$100,000
84. \$100,001 to \$250,000
85. over \$250,000

J. In the next 12 months, what cable services do you plan to buy?

86. Consulting/Brokerage Services
87. Contracting Services (Construction/Installation)
88. Repair Services
89. Technical Services/ Eng. Design
90. Training Services

K. What is your annual cable services expenditure?

91. up to \$50,000
92. \$50,001 to \$100,000
93. \$100,001 to \$250,000
94. over \$250,000

L. Do you plan to rebuild/upgrade your system in:

95. 1 year
96. more than 2 years

M. How many miles of plant are you upgrading/rebuilding?

97. up to 10 miles
98. 11-30 miles
99. 31 miles or more

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| 2 | 28 | 54 | 80 | 106 | 132 | 158 | 184 | 210 | 236 | 262 | 288 |
| 3 | 29 | 55 | 81 | 107 | 133 | 159 | 185 | 211 | 237 | 263 | 289 |
| 4 | 30 | 56 | 82 | 108 | 134 | 160 | 186 | 212 | 238 | 264 | 290 |
| 5 | 31 | 57 | 83 | 109 | 135 | 161 | 187 | 213 | 239 | 265 | 291 |
| 6 | 32 | 58 | 84 | 110 | 136 | 162 | 188 | 214 | 240 | 266 | 292 |
| 7 | 33 | 59 | 85 | 111 | 137 | 163 | 189 | 215 | 241 | 267 | 293 |
| 8 | 34 | 60 | 86 | 112 | 138 | 164 | 190 | 216 | 242 | 268 | 294 |
| 9 | 35 | 61 | 87 | 113 | 139 | 165 | 191 | 217 | 243 | 269 | 295 |
| 10 | 36 | 62 | 88 | 114 | 140 | 166 | 192 | 218 | 244 | 270 | 296 |
| 11 | 37 | 63 | 89 | 115 | 141 | 167 | 193 | 219 | 245 | 271 | 297 |
| 12 | 38 | 64 | 90 | 116 | 142 | 168 | 194 | 220 | 246 | 272 | 298 |
| 13 | 39 | 65 | 91 | 117 | 143 | 169 | 195 | 221 | 247 | 273 | 299 |
| 14 | 40 | 66 | 92 | 118 | 144 | 170 | 196 | 222 | 248 | 274 | 300 |
| 15 | 41 | 67 | 93 | 119 | 145 | 171 | 197 | 223 | 249 | 275 | 301 |
| 16 | 42 | 68 | 94 | 120 | 146 | 172 | 198 | 224 | 250 | 276 | 302 |
| 17 | 43 | 69 | 95 | 121 | 147 | 173 | 199 | 225 | 251 | 277 | 303 |
| 18 | 44 | 70 | 96 | 122 | 148 | 174 | 200 | 226 | 252 | 278 | 304 |
| 19 | 45 | 71 | 97 | 123 | 149 | 175 | 201 | 227 | 253 | 279 | 305 |
| 20 | 46 | 72 | 98 | 124 | 150 | 176 | 202 | 228 | 254 | 280 | 306 |
| 21 | 47 | 73 | 99 | 125 | 151 | 177 | 203 | 229 | 255 | 281 | 307 |
| 22 | 48 | 74 | 100 | 126 | 152 | 178 | 204 | 230 | 256 | 282 | 308 |
| 23 | 49 | 75 | 101 | 127 | 153 | 179 | 205 | 231 | 257 | 283 | 309 |
| 24 | 50 | 76 | 102 | 128 | 154 | 180 | 206 | 232 | 258 | 284 | 310 |
| 25 | 51 | 77 | 103 | 129 | 155 | 181 | 207 | 233 | 259 | 285 | 311 |
| 26 | 52 | 78 | 104 | 130 | 156 | 182 | 208 | 234 | 260 | 286 | 312 |

A. Are you a member of the
SCTE (Society of Cable
Television Engineers)?

01. yes
02. no

B. Please check the category that best describes your firm's primary business (check only 1):
Cable TV Systems Operations

03. Independent Cable TV Syst.
04. MSO (two or more Cable TV Systems)
05. Cable TV Contractor
06. Cable TV Program Network
07. SMATV or DBS Operator
08. MDS, STV or LPTV Operator
09. Microwave or Telephone Comp.
10. Commercial TV Broadcaster
11. Cable TV Component Manufacturer
12. Cable TV Investor
13. Financial Institution, Broker, Consultant
14. Law Firm or Govt. Agency
15. Program Producer or Distributor
16. Advertising Agency
17. Educational TV Station, School, or Library
18. Other (please specify) _____

C. Please check the category that best describes your job title:

19. Corporate Management
20. Management
21. Programming
22. Technical/Engineering
23. Vice President
24. Director
25. Manager
26. Engineer
27. Technician
28. Installer
29. Sales/Marketing
30. Other (please specify) _____

D. In the next 12 months, what cable equipment do you plan to buy?

30. Amplifiers
31. Antennas

32. CATV Passive Equipment including Coaxial Cable

33. Cable Tools
34. CAD Software, Mapping
35. Commercial Insertion/Character Generator
36. Compression/Digital Equip.
37. Computer Equipment
38. Connectors/Splitters
39. Fleet Management
40. Headend Equipment
41. Interactive Software
42. Lightning Protection
43. Vaults/Pedestals
44. MMDS Transmission Equipment
45. Microwave Equipment
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98. 11-30 miles
99. 31 miles or more

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| | Phase | 1 Φ 2 W/G | | | |
| | Frequency | 50 or 60 Hz | | | |
| | Wave Form | Sinusoidal wave | | | |
| AC/ output | Voltage | 60V or 40V \pm 1% | | | |
| | Phase | 1 Φ W/G | | | |
| | Frequency | 50 or 60Hz | | | |
| | Wave Form | Square wave | | | |
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| Short circuit protection | | Voltage may equal zero, breakdown eliminated and return to normal | | | |
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Reader Service Number 135



Raising the speed limit: CATV and the Internet

By Robert L. Smith

The 21st century is coming up the steps and knocking on the door. Technological innovations in communications are changing forever the way we and our families live. Many facets of our lives are impacted by these new forms of communications: the way we bank, shop, travel and educate ourselves. The Internet is helping with that change by making available a new form of communications for all segments of the population.

The Internet, or what has now become the Internet, was born from a Department of Defense initiative to create and maintain a communications system that would survive a nuclear holocaust. After the planned military use of the network failed to materialize, the network became a method for researchers and educators to communicate at high speeds and low cost.

It has now evolved into a supernetwork of over 20,000 individual, discrete networks around the planet. Communication between these different networks is made possible by the use of a common data transfer protocol known as TCP/IP that allows packets of data to be sent from one location to another. The actual path from one computer to another may take the data through several different networks and many computers before it is received. It is possible to visit many computers in

numerous countries in just a manner of minutes. In effect, the Internet has eliminated borders.

The ability to transfer any category of data at any time challenges government policies created to control or limit information. For example, a recent attempt by a journalist to send several floppy disks to a European destination was hindered by the seizure of the disks by customs for review. Faced with a deadline, the journalist found someone with an Internet feed and sent all the material in a matter of minutes. The deadline was met and the disks were released from customs several days later.

Unbelievable growth

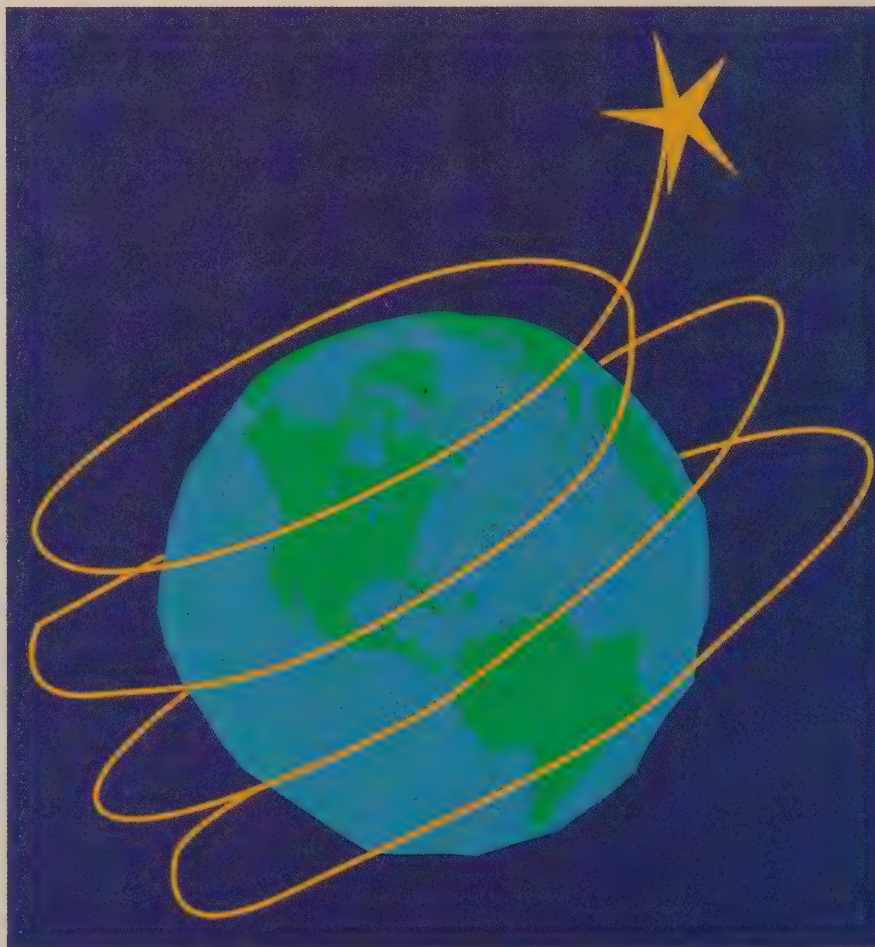
How big is the Internet? Well, no one knows for sure, but recent esti-

mates indicate that over 30 million discrete IP addresses (E-mail) are in use. In addition, there are over 3 million computers connected to the Internet with an estimated 20 million users. Growth of the net has been unbelievable: It has doubled in size every year for the past six years. This means that there are as many new people on the net each year as there were people on the net the year before.

So what's the big deal? It's the consumer Internet — a market waiting to be tapped by both established Internet providers, as well as newcomers to the industry, such as cable TV affiliates and broadband communicators. As the turn to a consumer-based information highway continues, it is important to note that the Internet is not the information highway. Known as the NII, the

information highway will be a much larger and much faster network. Certainly some components of the existing Internet will become part of the NII, but the existing structure is severely limited by speed and capacity. For example, a simple video broadcast to many sites simultaneously would shut the Internet down by completely overloading its capacity. Video in digital form requires enormous bandwidth and consumes bandwidth capacity rapidly.

Cable TV is changing all this and the industry is well-positioned to play a major role in business communications, the Internet and the entertainment side of NII. Behind the publicity



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and hype currently attributed to the coming information highway, the CATV industry is moving from being solely an entertainment provider to playing a serious role in business communications and information services. Popular Internet navigational tools such as Mosaic and Gopher will be increasingly beneficial to the user as a direct result of speed improvements. While Gopher searches the text-based Internet for software, files and other items of interest to users, Mosaic navigates the World Wide Web (WWW).

The development of Mosaic is recognized as the most significant development in Internet technology to date. Mosaic is a graphical interface that allows the user to point and click on a picture, a piece of text or other graphical symbol, and automatically be transferred to that item, which could be on a different continent. It has completely eliminated the use of complicated computer-language commands and the need to maintain an inventory of Internet addresses or site locations.



Bill Riker, president of the Society of Cable Television Engineers, is optimistic about the future of the Internet and the benefits to the cable industry.

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Speed is the key

However, there is a drawback to the ease of use associated with this technology. Current technology limits the speed of data transfers into and out of the Internet. The average consumer connects with a modem attached to a personal computer at speeds up to 14.4 kbs. Commercial users can use technology allowing speeds of 56 kbs or 1.5 Mbps (T-1), which greatly speeds up the amount of data that can be moved. These are expensive alternatives with a 1.5 Mbps (T-1) connection costing upwards of US\$1,000 per month.

This type of connection is popular with libraries and educational institutions that accommodate many users simultaneously. The cable TV industry, with the capability to offer data transfer rates from 4 Mbps up to 10 Mbps will eliminate many of the speed restrictions imposed by current technology. Data transfer speed will no longer be an issue and the emphasis in development will shift to product and services, rather than transportation.

As services proliferate, cable TV will become the on-ramp to the information highway by continuing to raise the speed limit of the data highway. Cable-Labs President Richard Green has told the U.S. Congress that the CATV industry will build the on and off-ramps for the national data superhighway and will do it now without any federal assistance.

Green stated: "The cable industry is making investments in these new tech-



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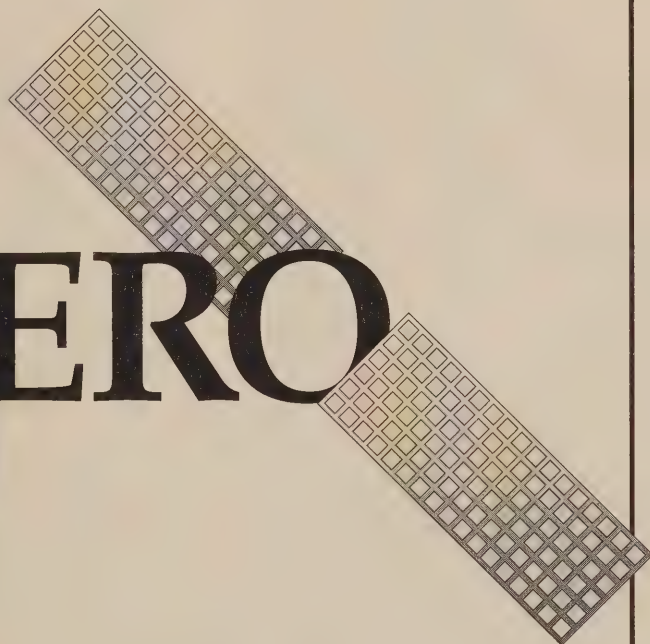
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nologies and services today. They are not merely pipe dreams on someone's drawing board. Moreover, the cable industry's investments are privately financed with no public funding. They are relatively inexpensive and very cost-efficient. Most important, the entire cable infrastructure can be upgraded to provide two-way interactive multimedia services for about \$20 billion, which is just a fraction of the \$400 billion required for the telephone companies to comparably rebuild their local networks."

In other words, the cable industry is prepared to develop and install its own information infrastructure at its own expense and do it without federal investment. Once this infrastructure is in place, the cable industry will be a two-way digital carrier ready to take on many and eventually all of the functions of the telephone network.

When asked about the impact of cable TV networks on the proliferation of the Internet, Tony Rutkowski, executive director of the Internet Society, responded: "It will have a profound effect. The market is not only almost unlimited with respect to size, but also with respect to innovative new tech-

"The cable industry is prepared to develop and install its own information infrastructure at its own expense."

nologies and applications. The Internet is literally a network of networks operating over almost any kind of underlying transport capabilities and integrating almost any kind of operating system. So in this sense, cable systems will very much become part of the global Internet mesh."

Making the connection

One of the biggest drawbacks to the cable TV industry providing a uniform network is the stand-alone nature of each system. Critics indicate that the natural isolation of each system will prohibit the development of high-speed networks functioning as one system. There is some validity in this but it is changing rapidly. The deployment of fiber-optic technology in cable TV networks is creating regional hubs with the

ability to connect to other regional hubs. It is not inconceivable that most cable systems will be interconnected in the near future.

Peggy Keegan, vice president, public affairs, of the California Cable Television Association, says that in the San Francisco area alone there are approximately 750,000 subscribers served by interconnected cable systems. This is not an insignificant number. Other regional interconnects are operating or being installed throughout the country. In the interim, cable operators will develop many hybrid networks and become a new and different type of Internet provider.

These hybrid networks will become a bridge between the Internet, the local cable TV operator, the local telephone company and the consumer. The industry will focus on serving the needs of small high-tech businesses and independent professionals working at remote sites such as home offices. Cable TV has many advantages over regional telephone companies and will likely become the provider of choice as the information age develops.

Cable operators are facing an eroding regulatory environment and increas-



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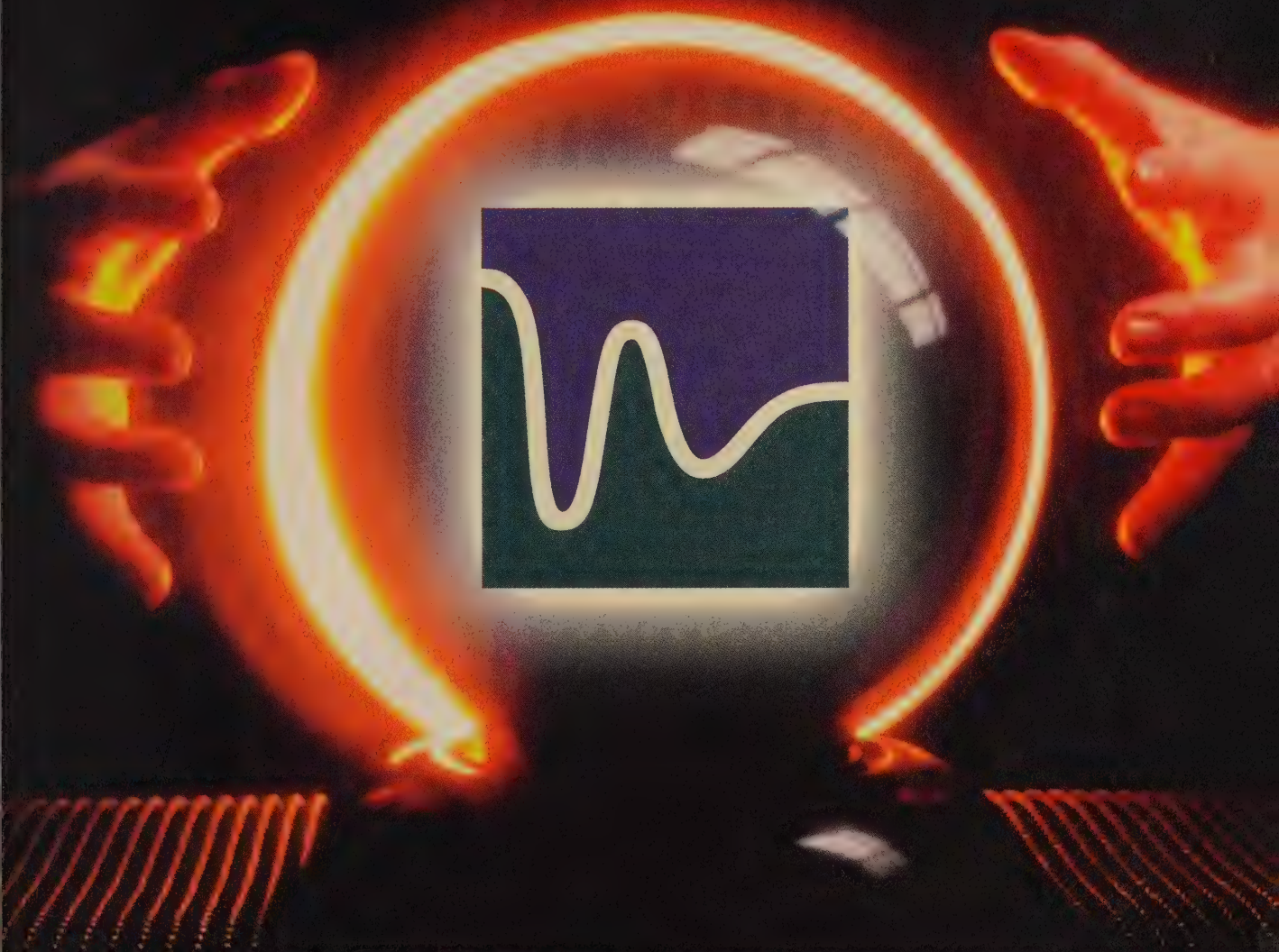
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ing competition for video services revenue as they look to the future of developing technologies. Much of the development is being done by Cable Television Laboratories Inc. (CableLabs), an industry research and development consortium headed by Richard Green. CableLabs was established in May 1988 as a research and development consortium of cable TV system operators. It currently represents more than 85% of cable subscribers in the U.S., 70% of subscribers in Canada and 10% of subscribers in Mexico.

CableLabs is very active in the development of technology integrating the Internet and cable TV systems. To demonstrate the practicality of this integration, CableLabs, in conjunction with the California Cable Television Association, hosts CableNet each year at the Western Cable Show in Anaheim, California, U.S.A.

CableNet '94

CableNet '94 occupied 5,000 square feet and was supported by more than 50 vendors, showcasing the power of hybrid fiber/coaxial architectures currently being placed in service by the cable industry. The event demonstrated

"Cable TV has many advantages over regional telephone companies and will likely become the provider of choice as the information age develops."

in a practical manner how the cable industry can deploy information highway services in education, entertainment and workplace environments. The event unequivocally demonstrated that interoperability is possible between the cable TV, telephone and computer industries.

According to Keegan, CableNet '94 provided attendees the opportunity to experience the benefits of high-speed broadband networks and showcased the coming information highway revolution. Keegan stated, "I think that the role of coaxial cable as delivery for Internet and access to the Internet is about to transform the use

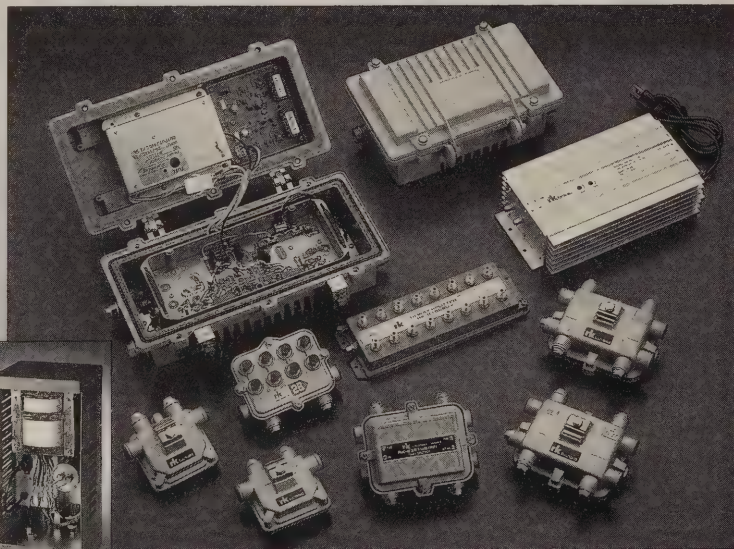
of the Internet much in the way Mosaic and Gopher did originally to be able to manipulate it and get into the Web."

Any statistics on the growth of the Internet are directly proportional to the statistics on growth of the WWW. Many companies are involved in the development of cable-based high-speed products, particularly new modems specifically designed for the high-speed cable environment. Keegan commented: "Certainly the cable modems that are being developed ... represent opportunities to transmit data at speeds that make the office at home an instantaneous experience rather than waiting for copper to transmit that kind of information to people who have been doing this at home for a long time.

"There are going to continue to be trials throughout the country and we here in California are going to be working with the CableNet vendors to develop trials for high users of the Internet. We are looking at Northern California in particular, and through Silicon Valley, to ensure that customers will have access to cable modems that will increase their speed for data on the Internet." →

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To support its objectives, CableLabs has created a WWW site that provides current information on its activities and links to other sites with information relating to cable TV. CableLabs may be reached at <http://www.cablelabs.com>.

Other companies are equally supportive of the Internet convergence with cable TV. Jose Barletta, director of the Internet Society Latin America will be conducting a three-hour workshop titled "The Internet: Nuts and Bolts" at the upcoming Brasil Link '95 in Rio de Janeiro on April 19, 1995.

SCTE

Bill Riker, president of the Society of Cable Television Engineers (SCTE), is optimistic about the future of the Internet and the benefits to the cable industry. The SCTE has followed suit with several other cable TV organizations in the creation of a cable TV "Cable On-Line" forum on the popular on-line service Prodigy. Other participants in the forum include the NCTA, CATA and CTAM. Riker said, "We are certainly embracing this new service and feel that it will be of great benefit to our membership and the industry in the dissemination of knowledge."

The SCTE is providing each of its members software, free of charge, courtesy of Prodigy. The association also will maintain an electronic bulletin board for its membership to be used for downlinking and replying to specific questions and needs of the membership. The Society is hiring a full-time employee to maintain the data base, and is arranging for unique addresses for each of the 75 chapters around the country so they can talk to each other through the service as well as modem files back and forth to the home office to eliminate the traditional paper trail. Riker said, "We have 600 volunteer chapter officers around the country and we're trying to make our interaction with them easier using the future technology."

International usage

The U.S. is far from alone in the explosive growth being experienced by the Internet. Europe is coming on-line in numbers rivaling the U.S. growth. Industry experts are predicting that 1995 will be the year that the Internet becomes mainstream throughout Europe. Current estimates indicate an installed base of over 11 million home

personal computers throughout the continent. Sales trends indicate this base is increasing dramatically. Online services are strong performers, with CompuServe claiming over 200,000 subscribers in Germany and the U.K. Several new services are preparing to launch, including Europe Online, a service based in Luxembourg that is backed by a consortium of English, French and German publishers. The latest research figures indicate that over a half million Europeans will go on-line during 1995 with upwards of 15 million subscribers projected to be on-line by the year 2000.

Whether domestically or internationally, it is clear that the cable TV industry will become a major part of the coming information highway. Next month, in part two, we'll have highlights of an interview with CableLabs' Richard Green, an update on MSOs and their involvement with Internet activities, and a look at Internet providers and services worldwide. **IC**

Robert L. Smith is president of InterScope Communications, a company involved in the international development of pay television.

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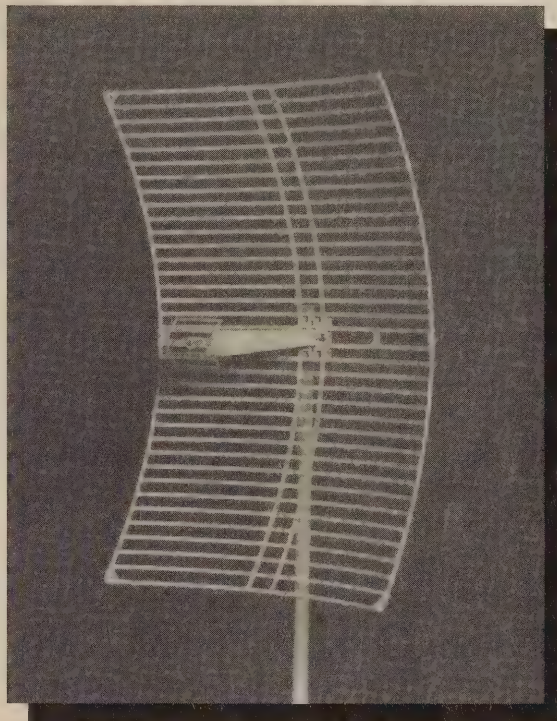


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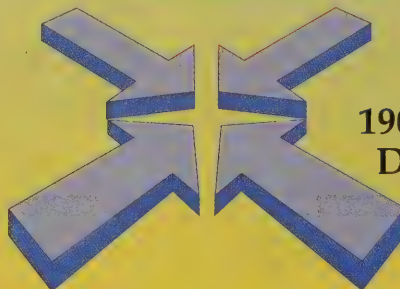
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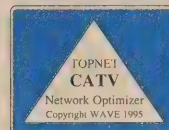


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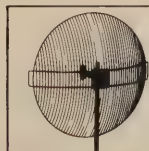
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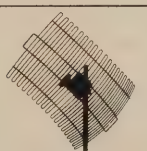
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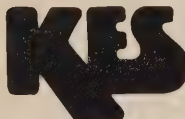
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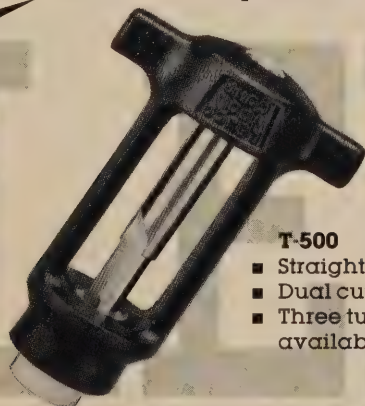
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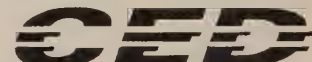
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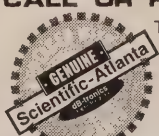
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
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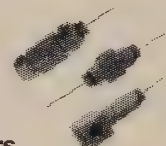
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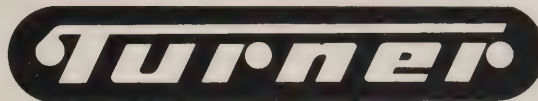
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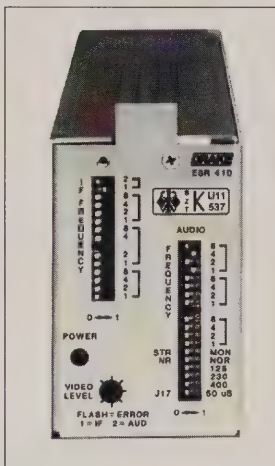
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Satellite receiver

The R.L. Drake Co.'s ESR410 is a high performance, miniature, rack-mountable satellite receiver. It utilizes frequency synthesis, as well as block conversion. Frequency synthesis offers precise tuning in 1 MHz steps across a frequency range of 950-2,050 MHz. Intended for fixed-tuned applications, the ESR 410 can be used in SMATV, commercial or industrial audio, video or data service environments.

The unit has several features that provide quality audio performance, according to the company. For example, it has a noise reduction mode and is compatible with Wegener stereo audio transmissions. Audio subcarriers in the range from 5 to 9 MHz



may be tuned from the front panel of the receiver. Three audio IF bandwidths as well as three de-emphasis characteristics may be selected by means of the easily accessed DIP switch bank. The ESR410 also has a separate broadband subcarrier output that is available to allow an external device to demodulate audio and other services.

The unit also has video features including digital automatic frequency control incorporated to maintain optimum video performance in the presence of input frequency drift. Video output level is adjustable from the front panel of the unit and baseband video and audio outputs are provided for use with a Drake video modulator, such as the model VM410. A second, unclamped, unfiltered video output also is provided for use with a

descrambler, and may be selected by an internal jumper as either flat or de-emphasized video.

For additional information, contact R.L. Drake Co., P.O. Box 3006, Miamisburg, Ohio 45343; phone (513) 866-2421.

NLS transaction management

CableData announced that its Intelecable transaction management system now includes National Language Support (NLS), an international standards-based feature that supports full translation into either Latin or Asian ideographic character sets. In addition to this new feature, the system also supports pay-per-view functionality and the company's own trademarked Service Groups capability.

For more information, contact CableData International Ltd., Spectrum Point, 279 Farnborough Road, Farnborough, Hamps. GU14 7LS, England; phone, +44 252 378585.

INTERNATIONAL



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1995 NATIONAL SHOW • DALLAS, TEXAS USA • MAY 7-10, 1995

The National Cable Television Association and *International Cable* magazine invite you to join us in the International Lounge at the 1995 National Show in Dallas, Texas, USA.

The International Lounge will be conveniently located in the Dallas Convention Center, near the show floor, and will be an "office-away-from-home" for international registrants.

Services in the International Lounge will include:

- Business center with phones, fax machines & copier
- Translation and secretarial assistance by arrangement
 - Convenient meeting space off the show floor
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For further information regarding the International Lounge at the 1995 National Show, please contact Bill Parker or Cindy Tandy at *International Cable*:

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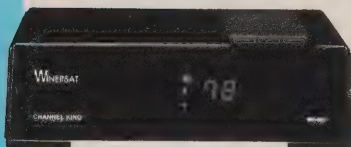
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WR-582 CHANNEL KING (MULTI-ROOM VIDEO SYSTEM)

- 470-890 MHz output frequency agility
- NTSC: CH14-CH83 PAL-G: CH21-CH69
- PAL-K: CH13-CH57



WTC-301 CATV SET TOP CONVERTER

- NTSC 54-564 MHz, CH13 or 3 output
- PAL-B: 47-550 MHz, CH3 output
- PAL-D: 54-564 MHz, CH4 output
- Favorite channel setting
- Security code setting



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- Multi-Languages OSG Display
- IR Remote Control • Stereo Output
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- Input Frequency 950-2050 MHz
- Auto Scan Program Available
- PLL Synthesized Frequency Tuning
- WR-912L: Dual RF Inputs 18/27 MHz IF Bandwidth Switchable
- WR-912C: Single RF Input 27 MHz IF Bandwidth



WR-200 IRD Satellite Receiver

- Infrared Remote Control • Color On Screen Display
- Two RF Inputs & Two IF Bandwidths (18/27 MHz) with TI Filter.
- More than 50 Satellite Positions Memory
- 60 Favorite Channels • Built-in Antenna Positioner
- Parental Lock • Direct Channel/Satellite Access



WCR-100 CATV COMMERCIAL RECEIVER

- NTSC and PAL available
- Direct frequency entry (1MHz steps)

WDM-200L AGILE DEMODULATOR

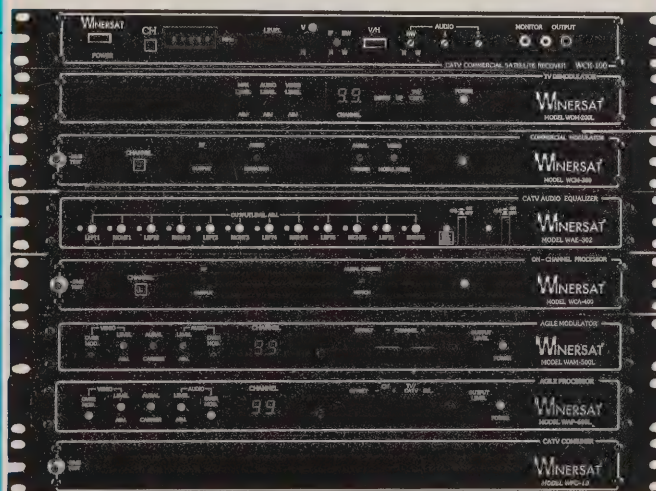
- NTSC: 54-806 MHz
- PAL-B: 46-870 MHz
- PAL-D: 48-870 MHz
- CPU control with LED display
- MPX output optional

WCM-300 MODULATOR, FIXED CHANNEL

- 55dBmV output
- NTSC: 2-13, A-W
- PAL-B: CH E2-E12, S1-S20
- PAL-D: CH DS1-DS12, Z1-Z17

WAE-302 CATV AUDIO EQUALIZER

- Audio input: 6 stereo or 12 mono CHs
- Input level: ± 18 dB, Tolerance: ± 0.5 dB
- Output level: 0-2Vpp (1Vpp preset)



WCA-400 ON-CHANNEL PROCESSOR

- Fixed Channel
- NTSC: CH2-T3
- PAL-B: CH E2-E12 PAL-D: CH DS1-DS12

WAM-500(S)L AGILE MODULATOR, with LED

- 40-450 MHz output frequency agility
- NTSC: CH2-YY
- PAL-B: CH E2-S39
- PAL-D: CH DS1-Z36
- Output Level: 40 dBmV (WAM-500L)
60 dBmV (WAM-500SL)

WAP-600(S)L AGILE PROCESSOR, with LED

- NTSC: 54-806 MHz, CH2-YY output
- PAL-B: 46-870 MHz, CH E2-S39 output
- PAL-D: 48-870 MHz, CH DS1-Z36 output
- Output: 40 dBmV (WAP-600L)
60 dBmV (WAP-600SL)

WPC-12 CATV Combiner

- Frequency Range 5-600 MHz
- Insertion Loss 16 dB
- Isolation 35 dB paired ports;
45 dB unpaired ports
- Flatness ± 1 dB
- Test Point -20 dB

OEM/ODM/SKD WELCOME

Reader Service Number 49

AHEAD...

- MTV, the network that helped bring down the Berlin Wall, is over 13 years old and a household name the world over. Now it's attracting increased competition and trying to stay fresh. Judy Freeman Mills reports.
- Thailand's Thaskin Shinawatra and the Shinawatra Group are controversial, and very, very successful. By Lore Devra Levin Coy.
- Cable and wireless in Russia. Anna Franklin gets technical on who owns and operates the bandwidth.
- Gambling on television? It's legal by phone in seven U.S. states and cable's waiting in the wings. Dominic Provenzano plays the house.
- The Canadians are coming! The list of Canadian MSOs heading to Europe is getting longer, at an increasingly rapid rate. James Careless explains why.
- Plus... the U.K. Cable Associations' Director General, Richard Woollam in "The Executive Suite" and the 1994-1995 Index of Articles!

For advertising information contact:

Stephan DeRemusat — France
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95160 Montmorency, France
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CALENDAR

April 3-5: Cable & Satellite '95, Grand Hall, Olympia, London. Contact Reed Exhibition Companies, (44) 081 948-9800.

April 18-20: Brasil Link '95, Nacional Rio Hotel and Inter-Continental Hotel, Rio de Janeiro, Brazil. Contact Globex, (713) 342-9826 (U.S.).

April 25-27: 1995 Latin American Cable & Telephony Conference, Sheraton Hotel, Buenos Aires, Argentina. Contact AIC Conferences Chile, (56-2) 246-8100.

May 7-10: The National Show, Dallas, Texas, U.S.A. Contact National Cable Television Association, (202) 775-3669.

May 28-31: Canadian Cable Television Association Convention and CableExpo, Halifax, Nova Scotia. Contact CCTA, (613) 232-2631.

June 1-2: Iberica Link, Melia Castilla Hotel, Madrid, Spain. Contact Globex, (713) 342-9826 (U.S.).

June 5-7: 1995 Latin American Satellite & Cable Television Conference and Exhibition, Casa Piedra Convention Center, Santiago, Chile. Contact AIC Conferences Chile, (56-2) 246-8100.

June 14-17: Society of Cable Television Engineers Cable-Tec Expo, Las Vegas, Nevada, U.S.A. Contact SCTE, (317) 845-8100.

June 26-28: East EuroLink '95, Atrium Praha Hotel, Prague, Czech Republic. Contact Globex, (713) 342-9826 (U.S.).

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Sept. 13-15, 1995 Taipei, Taiwan



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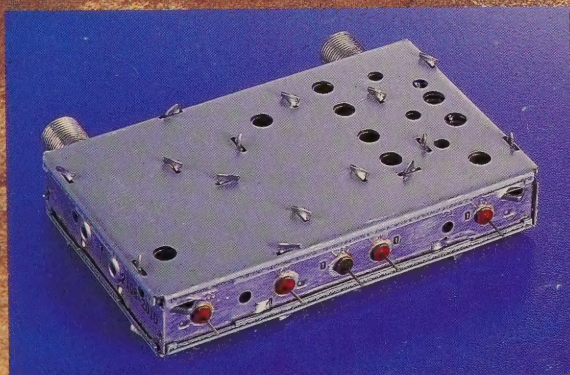


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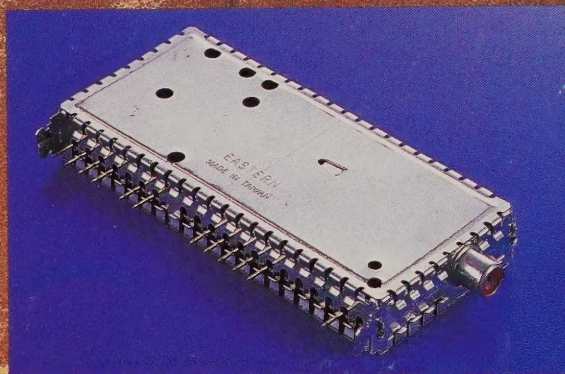


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